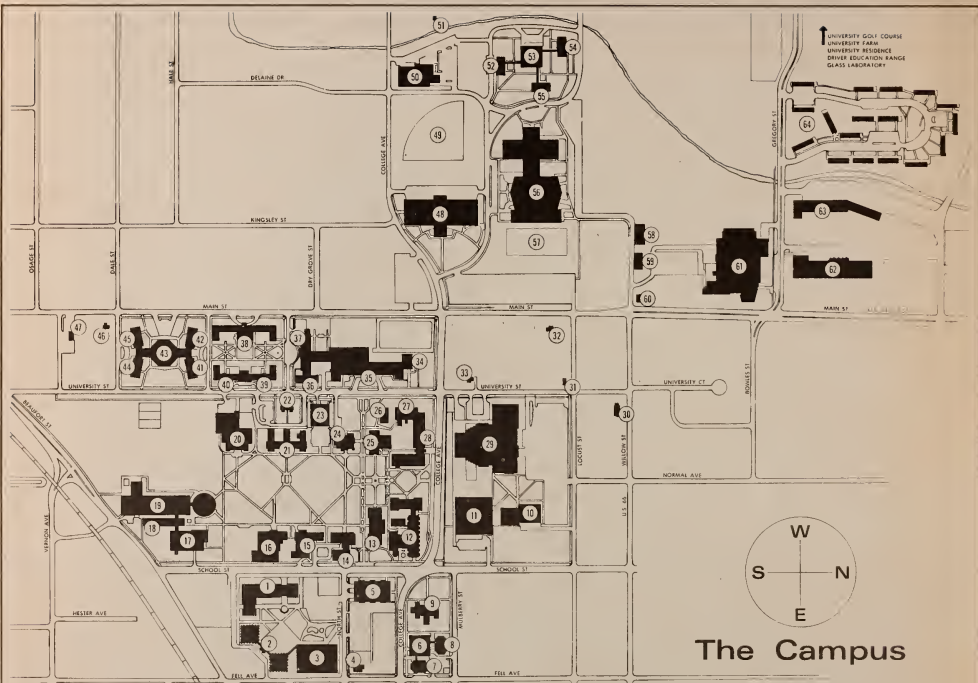




Illinois
State
University

1975-76
**Graduate
Catalog**



The Campus

- | | | | |
|---------------------------------|--|---------------------------|-------------------------------------|
| 1. Stevenson Hall | 17. Westhoff Theatre | 31. Student Association | 48. Turner Hall |
| 2. Waterson Towers | 18. Centennial West | 32. Campus Recreation | 49. Redbird Baseball Field |
| 3. Waterson Commons | 19. Center for the Visual Arts Gallery | 33. Stenographic Services | 50. Parking Services |
| 4. Educational Admin. Annex | 19. Center for the Visual Arts | 34. Hayden Auditorium | 50. General Services Building |
| 5. East Gate Hall | 20. McCormick Hall | 35. Metcalf School | 51. Eyestone School Museum |
| 6. Vrooman Center | 21. Fell Hall International House | 36. Cooper Health Service | 52. Wilkins Hall |
| 7. Hewett Hall | 21. Housing Office | 37. Fairchild Hall | 53. Linkins Center |
| 8. Manchester Hall | 22. Rambo Alumni/Foundation House | 38. Walker Hall | 54. Wright Hall |
| 9. Information Phones | 23. DeCarmo Hall | 39. Barton Hall | 55. Haynie Hall |
| 10. Bowling/Billiards Center | 24. Cook Hall | 40. Dunn Hall | 56. Horton Physical Education Bldg. |
| 11. Site of New Library | 25. Edwards Hall | 41. Hamilton Hall | 57. Hancock Stadium |
| 12. Felmley Hall | 26. Capen Auditorium | 42. Whitten Hall | 58. Judging Pavilion |
| 13. Maulton Hall | 26. Vidette | 43. Feeney Center | 59. Machinery Hall |
| 14. Haver Hall (Administration) | 27. Heating Plant | 44. Colby Hall | 60. Hudelson Farm Museum |
| 15. Educational Media Center | 28. Schroeder Hall | 45. Atkin Hall | 61. University High School |
| 16. Milner Library | 29. University Union/Auditorium | 46. University Architect | 62. Green Food Service Building |
| 17. Centennial East | 30. HPS Special Services | 47. Placement Service | 63. Carter Harris Physical Plant |
| | | | 64. Cardinal Court |

Illinois
State
University

1975-76

Graduate
Catalog

Table of Contents

University Calendar	3
Board of Regents	4
Officers of the University	5
The University	6
The Graduate School	7
Admission	8
Cost and Living Accommodations	12
Assistantships, Scholarships, Financial Aids and Employment	14
Student Life and Services	16
Fields of Study and Degrees Granted	18
Master's Degree	18
Master of Fine Arts	22
Specialist in Education	24
Doctor of Arts	26
Doctor of Philosophy and Doctor of Education	28
Academic Procedures and Regulations	30
Graduation	32
Colleges of the University	32
Departments and Course Offerings	34
Faculty	141
Index	151

University Calendar

1975 SUMMER SESSIONS

May 19	Opening of Presession.
June 23	Opening of and registration for 8 week session.
June 27	Last day for late registration. Last day to apply to departments to take comprehensive examinations.
July 11	Last day to apply for graduation in August. Foreign language proficiency examinations.
August 1	Last day to drop a course.
August 5	Last day to file theses in library for August 15 graduation.
August 14-15	Evaluation and review period.

1975 FIRST SEMESTER

August 21-22	Registration. See class schedule booklet for specific registration schedule.
August 21	Registration for late afternoon, evening and Saturday Classes. See class schedule booklet for specific registration schedule.
August 25	Classes begin.
August 28	Last day to apply to departments to take comprehensive examinations.
August 29	Last day for late registration and course changes.
September 1	Labor Day Holiday.
October 3	Last day to apply for December graduation. Foreign language proficiency examinations.
November 26	Thanksgiving vacation begins, noon.
December 1	Classes resume, 8 a.m.

December 9	Last day to file theses in Graduate Office for December graduation.
December 13-19	Evaluation and review period.

1976 SECOND SEMESTER

January 8-9	Registration. See class schedule booklet for specific registration schedule.
January 8	Registration for late afternoon, evening and Saturday classes. See class schedule booklet for specific registration schedule.
January 12	Classes begin.
January 15	Last day to apply to departments to take comprehensive examinations.
January 17	Last day for late registration and course changes.
February 20	Last day to apply for graduation in May.
March 5	Foreign language proficiency examinations. Spring vacation begins after scheduled classes.
March 15	Classes resume, 8 a.m.
May 5	Last day to file theses in Graduate Office for May 15 graduation.
May 8-14	Evaluation and review period.
May 14	Second semester ends, 5 p.m.

1976 SUMMER SESSIONS

May 17- June 18	Presession
June 21- August 13	Eight week session.
July 4	Holiday.

Board of Regents

J. Robert Barr (Evanston) Chairman
David E. Murray (Sterling) Vice-Chairman

Appointed Members 1969-1975

A. L. Knoblauch Roseville

1971-1977

J. Robert Barr Evanston
Charles B. Shuman Sullivan
Mrs. Warren F. Spencer Evanston

1972-1975

David E. Murray Sterling
James M. Patterson Olympia Fields

1973-1979

Michael J. Brady Springfield
Mrs. Eleanor R. Suggs Phoenix

1974-1980

Guy C. Prisco Aurora

Ex-officio Member

Joseph M. Cronin, State Superintendent of Education Springfield
(Represented by Ms. Edith R. Terwilliger, Champaign)

Students

Joe Lucarelli DeKalb
Dan Taylor Normal
Claude Knuepfer Springfield

Executive Director

Franklin G. Matsler Springfield

Illinois State University is governed by the Board of Regents. The Board consists of 13 members, nine appointed by the Governor for terms of six years and the State Superintendent of Education who is ex-officio. Three student members are appointed by the Governor and serve in non-voting capacities.

Officers of the University

President Gene A. Budig
 Acting Vice President and Provost Arlan C. Helgeson

Instructional Officers for Graduate Programs

Dean of Academic Services and Director of the Summer Session Francis B. Belshe
 Acting Dean of the Graduate School and Chairman of the Graduate Council Charles A. White
 Dean of the College of Applied Science and Technology Charles B. Porter
 Dean of the College of Arts and Sciences Barbara S. Uehling
 Dean of the College of Business E. Frank Harrison
 Acting Dean of the College of Education Robert H. Moore
 Dean of the College of Fine Arts Charles W. Bolen
 Director of the Division of Continuing Education and Public Service
 and Assistant Director of the Summer Session Francis R. Brown

Members of the Graduate Council

Admission Committee

Gary Ramseyer (1977)
 Peter Couch (1976)
 Taimi M. Ranta (1976)
 Martin A. Young (1975)

Curriculum Committee

Paul F. Mattingly (1977)
 Clayton Thomas (1976)
 John K. Boaz (1976)
 Walter S.G. Kohn (1975)

Membership Committee

D. Reed Jensen (1977)
 Eugene Irving (1976)
 James L. McBee, Jr. (1976)
 Phebe Scott (1975)

Research Committee

Ronald Halinski (1977)
 Ray Lewis White (1976)
 Evelyn J. Rex (1976)
 L. Moody Simms, Jr. (1975)

Newly elected and appointed members of the Graduate Council for 1975-76; their respective committees and terms of office appear below:

Admissions Committee

John W. Kirk (1978)

Curriculum Committee

Albert D. Otto (1978)

Membership Committee

Dorothy Lee (1978)

Research Committee

Tse-Kia Tcheng (1978)

The University

Illinois State University was founded in 1857 as the first public institution of higher learning in Illinois.

The University has a proud heritage in that the documents establishing the pioneer educational undertaking were drafted by Abraham Lincoln.

Today, Illinois State University is, as its founders dreamed, a comprehensive institution with degree programs at the bachelor's, master's, specialist and doctoral levels.

Fifty-five major fields of study are offered in 27

academic departments which are organized into five colleges. The nearly 20,000 students have a full range of study options in liberal arts, science, fine arts, education, applied science, technology and pre-professional fields.

A library with collections totaling more than 1.5 million complements a modern academic complex of 54 major buildings on the 740-acre campus.

The Central Illinois community of Normal-Bloomington, home of Illinois State University, has a population of 75,000.



The Graduate School

THE GRADUATE SCHOOL

The University began offering graduate work in 1943, when it introduced master's degree programs in several departments. Graduate work has expanded gradually since that time, with doctoral work being introduced in 1962.

Today the Graduate School offers master's degree work in more than thirty academic fields and professional education areas and offers a sixth year Specialist in Education degree in Educational Administration. The Master of Fine Arts degree is offered in Art and Theatre. Doctoral programs are offered in Art, Biological Sciences, Educational Administration, Economics, History, and Mathematics.

It is the chief aim of the Graduate School to provide an atmosphere in which competent students may join a qualified faculty in extending their fields of knowledge, and where they may share experience in research leading to professional improvement and scholarly achievement.

ACCREDITATION

Illinois State University is accredited on the master's level by the North Central Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education. Its doctoral programs in Art and Educational Administration were granted preliminary accreditation by the North Central Association in June, 1964, and its sixth year and doctoral programs in Educational Administration were granted full accreditation by the National Council for the Accreditation of Teacher Education in 1970. Preliminary approval has been given to the Doctor of Arts program in Economics, History, and Mathematics. The three D.A. programs will be evaluated at the end of five (5) years. The University holds institutional memberships in the American Council on Education, the American Association of Colleges for Teacher Education, and the Council of Graduate Schools in the United States.

LIBRARY RESOURCES

The collections of the University Library include 626,400 cataloged books and 188,700 U.S. Government publications, a total of 815,100 volumes. Many thousand additional publications are available in miniature in 32,900 reels of microfilm and 644,000 microcards and sheets of microprint. The Map Collection contains 213,600 maps and other cartographic items and a record collection of 11,800 phono-records of music and literature is available.

The Library's membership in the Center for Research Libraries makes the resources of that 3,000,000-volume collection available for members of the faculty and students. A teletypewriter in Milner Library links the Library with more than a hundred research libraries throughout the country, and a courier service brings books from the University of Illinois Library twice weekly.

A new \$8,000,000 library building now under construction is expected to be available for use in 1975-76.

SEMESTER PLAN AND SUMMER SESSIONS

The University is operated on the semester plan and provides, in addition to its fall and spring semester, an eight-week summer session and a variety of short-term offerings.

In 1975, there will be a five-week session between the close of the spring semester and the opening of the eight-week summer session. During this session, a student may register for a one, two, or three-hour course for three weeks.

Limited student teaching and internship facilities are available during the eight-week summer session for those who are qualified.

A graduate student may register for nine semester hours during the eight-week summer session.

The **Summer Catalog** is issued annually and may be obtained by writing to the Director of the

Summer Sessions. The bulletin contains information on the cost of attendance, the schedule of classes, and special features of the summer sessions, such as short courses and workshops and other special offerings.

EVENING, SATURDAY, OFF-CAMPUS CLASSES AND SHORT COURSES

In addition to courses offered during the regular school day, late afternoon, evening and Saturday classes are scheduled on campus during the regular school year.

Selected graduate courses are offered at various off-campus centers throughout the year. **For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus, beginning with the Second Semester 1973-74.** Inquiries concerning off-campus courses should be directed to the Director of Continuing Education and Public Service.

Short courses one or more weeks in duration and carrying one hour of credit per week are offered during the summer on campus.



Admission

WHO MAY APPLY

A student who has completed work for a bachelor's degree, or who will do so within one academic year at a college or university that is accredited by the appropriate regional accrediting association, may apply for admission to the Graduate School. While conditional admission may be granted to a senior, only those who have received a bachelor's degree will be permitted to register. Under

certain conditions, however, seniors may be permitted to begin graduate work. See section on "Admissions to Master's Programs" on this page.

APPLICATIONS AND CREDENTIALS

All students who wish to take work for graduate credit must submit a formal application for admission to the Graduate School. This includes students who have graduated from, or are attending this University. It also applies to those who wish to take un-

iversity courses off-campus for graduate credit. Application forms and instructions are available from the Office of Admissions and Records, Hovey Hall.

WHEN TO APPLY

A prospective student at the master's level should file an application and arrange for official transcripts to be sent at least three weeks before the date of registration. (Under special circumstances the Director of Admissions and Records may approve applications tentatively, pending receipt of official transcripts or action by the committee on admission. Conditional admission will not be granted for short courses, or pre-session.)

Applicants for admission to Master of Fine Arts, specialist and doctoral programs are encouraged to apply as early as possible. Two months should be considered as the minimum period between filing of applications and registration.

READMISSION OF FORMER STUDENTS

Graduate students who wish to return to the University after a lapse of one semester or more should apply for readmission through the Office of Admissions and Records at least seven days prior to the beginning of registration for the session which they wish to attend. A student who has attended another college or university during absence from the campus should request that institution to send a transcript of the student's work to the Office of Admissions and Records at this University.

ADMISSION OF NON-DEGREE STUDENTS

The University admits two types of students who are eligible to take graduate work for graduate credit. These are (a) students in degree programs, and (b) non-degree students.

A student in a degree program follows a program that, if successfully completed, leads to a degree. A non-degree graduate student may take graduate courses but has not been approved to work toward a degree.

A non-degree student who later wishes to work

toward a degree must make application for admission to a degree program in the Office of Admissions and Records. The usual application fee applies. The student must meet the regular entrance requirements for a degree program. In the meantime, there is no guarantee that courses taken while he is a non-degree student may be used in meeting the requirements for a degree.

Credits earned by a non-degree student are recorded and are available for transfer. But such credit may not be used in meeting the requirements for a degree at Illinois State University unless the student is regularly admitted to a degree program as noted above. If admitted, the student may then request that earlier work be considered in meeting requirements. In approving such a request the University will consider the quality of the work and the requirements of the curriculum in which the student is enrolled.

A non-degree student may register for courses for which the student has the prerequisites, unless such registration is restricted by the Dean of the Graduate School.

ADMISSION TO MASTER'S PROGRAMS

An applicant for a program leading to the master's degree is considered on the basis of the individual's academic record and other criteria that may include examinations, interviews and letters of recommendation. Tests for admission are described below.

An applicant with a superior academic record may be admitted directly to a degree program. No student is admitted to a degree program who does not have at least a 2.6 grade point average (on a scale in which A equals 4) in the last 60 hours of undergraduate work. A student who does not meet this standard but whose academic record and Graduate Record Examination scores give promise of high performance may be given a probationary period of enrollment as a non-degree graduate student. In considering an applicant for any curriculum, there may be departmental requirements in addition to the general requirements of the University.

When an applicant is approved, the departmental adviser will indicate any courses that may be re-

quired to remove undergraduate deficiencies. The adviser also may specify certain graduate courses which will be required in addition to those listed in the catalog. The adviser will designate which, if any, of these courses may be used in meeting requirements for the degree.

A senior in good standing at this University may begin graduate work during the academic year in which the requirements for the bachelor's degree are completed, if the student applies for and is admitted to the Graduate School. During a semester the student may not register for more graduate credit than the difference between 15 hours and the number of hours required to complete the bachelor's degree. It is understood that graduate credit may be received for graduate courses only if requirements for the bachelor's degree are completed during the semester or summer session in which the student begins graduate work. This opportunity is also extended to last semester seniors of other universities who find it possible to take graduate work at this University while completing requirements for the bachelor's degree on their own campuses. Interested students should write to the Dean of the Graduate School for further information.

ADMISSION TO MASTER OF FINE ARTS IN ART AND THEATRE

All regular criteria for admission to the Graduate School of the University and for graduate study in Art and Theatre will apply.

Admission to the Master of Fine Arts programs in Art and Theatre normally will occur on petition of the student after he is enrolled in a graduate program. Usually the petition will be considered after one semester of graduate study.

In the **Department of Art**, graduate students must be accepted by the Department of Art. This will require the submission of a portfolio of the student's work, an example of scholarly writing and three letters of recommendation. This material will be reviewed by the members of the studio faculty in the student's intended area of concentration. After final admission evaluations have been completed, Admissions and Records will notify the student of admission to the Master of Fine Arts Program.

The student not recommended for admission to the Master of Fine Arts program will receive an evaluation of his deficiencies; the evaluating committee will recommend courses or other deficiencies. After removing the deficiencies the student may reapply for admission. A student may reapply for admission only once.

In the **Department of Theatre**, graduate students who hold no master's degree will be admitted to the Master of Fine Arts program only after completing 12 graduate hours in theatre courses at Illinois State University or upon recommendation of the department's graduate faculty. After completing 12 hours, the student will be permitted to audition by portfolio and performance. The audition will be evaluated by the graduate faculty. A written evaluation of the candidate will be presented to the department chairperson. If the student is not recommended for admission he will receive an evaluation of his deficiencies; the evaluation committee will prescribe courses or other experiences to remove the deficiencies. A student may reapply for admission only once.

ADMISSION TO SPECIALIST AND DOCTORAL PROGRAMS

A student seeking admission to a specialist or doctoral degree program must present letters of recommendation and must take qualifying examinations before being admitted to the program. The student may be required to come to the campus for an interview. Tests for admission are described below.

Admission of an applicant to a specialist or doctoral program will take account of personal and professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

TESTS REQUIRED FOR ADMISSION

Master's Programs

All students seeking admission to master's degree programs in the Departments of Economics,

Geography, Health, Physical Education and Recreation, Political Science, and Psychology must submit scores on the Aptitude Test of the Graduate Record Examination. Applicants to the Departments of Economics, Geography, and Psychology should also submit scores on the Advanced Test in their field of study. Students seeking admission to Business departments should substitute the Admission Test for Graduate Study in Business for the above examination. Arrangements for taking these examinations can be made locally in the Measurement and Evaluation Office, 115 East Gate Hall or by writing to Educational Testing Service at either Box 955, Princeton, New Jersey 08540, or 1947 Center Street, Berkeley, California 94704.

Master of Fine Arts Program

Students seeking admission to MFA programs should consult pages 22 through 23

Specialist and Doctoral Programs

All students seeking admission to specialist and doctoral programs must submit scores on the Aptitude Test of the Graduate Record Examination and the appropriate advanced test. Information concerning this examination may be obtained at testing centers or by writing to Educational Testing Service at either Box 955, Princeton, New Jersey 08540, or 1947 Center Street, Berkeley, California 94704.

An English usage test also is required. Arrangements for taking these examinations either locally or at other testing centers can be made locally in the Measurement and Evaluation Service, 115 East Gate Hall, Illinois State University.

English Examination for International Students

Illinois State University requires that students from non-English speaking countries who seek admission to the Graduate School must take the "Test of English as a Foreign Language." Students wishing to take this examination should write to TOEFL, Educational Testing Service, Princeton, New Jersey 08540. They will be informed as to testing

centers nearest their homes and the dates on which the examination will be offered. Following completion of the examination they should ask the Educational Testing Service to send test scores to the Graduate School, Illinois State University, Normal, Illinois 61761.

ADMISSION TO TEACHER EDUCATION PROGRAMS

Students who have been admitted to the Graduate School and who wish to take work leading to certification for public school positions in Illinois should send or take transcripts of their past work, plus a \$10.00 certified check or money order, to the nearest Superintendent of an Educational Service Region requesting an evaluation for the particular certificate in which they are interested. The Superintendent of the Educational Service Region will forward the check and formal application to the State Teacher Certification Board. Students should not write directly to the State Teacher Certification Board. Students should also confer with the Dean of the Graduate School so that they can be assigned an advisor in an academic department to assist them in planning a program to meet requirements specified by the State Teacher Certification Board.

All students seeking to complete certification requirements at Illinois State University must meet University standards for teacher education programs. Students who wish to enroll in student teaching must file official applications for Admission to a Teacher Education Program and Student Teaching, have completed satisfactorily the courses which are prerequisite to student teaching and have been approved for student teaching by the chairperson of the department of the student's major. For further information, consult Teacher Education Requirements in the current **Undergraduate Catalog**.

Graduate students who already hold certification for teaching but are seeking certification on a different level, such as supervision, will be advised as to procedure in the Graduate School Office, 310 Hovey Hall or their respective departments.

Cost and Living Accommodations

APPLICATION FEE

An application fee of \$15 (check or money order) must accompany the application for admission.

FEES—RESIDENTS OF ILLINOIS

The following fees are due on registration day. Students are not admitted to classes until fees have been paid. **All fees are subject to change without notice because action regarding them may be taken after publication of this catalog.**

Each Semester

For students who register for 12 or more semester hours:

*Tuition	\$202.00
Activity and General Service fee	33.50
**Student Insurance	13.00
University Union fee	38.00
Recreational facilities fee	9.00
Health Service fee	10.00
	<hr/>
	\$305.50

For students who register for fewer than 12 hours:

Tuition per hour	\$18.00
General Service fee***	10.00
University Union fee	19.00

Eight-Week Summer Session

For students who register for more than three semester hours:

Tuition	\$101.00
Activity and General Service fee	16.00
Student Insurance	6.25
University Union fee	19.00
Recreation facilities fee	4.50
Health Service fee	5.00
	<hr/>
	\$151.75

For students who register for three semester hours or less:

Tuition per hour	\$18.00
General Service fee	8.00
University Union fee	9.50

*Graduate Assistants and Fellowship holders, see page 14.

**1974-75 charge. 1975-76 fee dependent upon new contract.

Pre-Session and Short Courses

Tuition per hour	\$18.00
------------------------	---------

Auditors

Fees for students who take courses as auditors, without credit:

Tuition per hour	\$18.00
Maximum charge for a semester	\$202.00
Maximum charge for eight-week summer session	\$101.00

Other Fees and Expenses

Graduation fee	\$15.00
Must be paid before published deadline	
Late registration fee	\$10.00
Charged after scheduled registration period	
Transcript of record	1.00
Transcripts are issued only when all obligations have been met.	
Locker and towel fee for students in physical education courses (\$2.00 refunded when padlock is returned)	3.00
Doctoral dissertation fee (microfilming)	25.00

STUDENT HEALTH AND ACCIDENT INSURANCE

Each full time student (12 or more semester hours) is assessed a fee to purchase a health and accident insurance policy. This policy provides for 100 percent payment of the first \$500 of reasonable hospital expenses and 80 percent of such expenses above \$500. It covers 80 percent of the reasonable expense for a surgeon or certain physicians fees other than those for surgery. There is also an allowance for consultation and ambulance fees. The maximum amount payable for any one accident or sickness is \$10,000. The student's coverage is effective on the date on which University classes begin.

Those students who can produce evidence of equal or better coverage may apply for a refund of the insurance fee by contacting the Office of University Insurance. Application must be submitted within ten days following the date on which University classes begin.

Coverage for a student's spouse and children may be obtained at an additional cost in the Office of University Insurance if applied for within 10 days after the date on which University classes begin.

Students who wish to maintain continuous year round coverage may purchase coverage for the Summer period whether or not they are enrolled in Summer School. This should be done prior to the Spring commencement date. The five-week period between commencement and the start of Summer Session is not covered in any registration fees and coverage must be purchased separately before the end of Spring semester.

Claim forms and brochures explaining the coverage are available in the Office of University Insurance.

FEES—OUT-OF-STATE STUDENTS

A student who is not a resident of Illinois pays the non-resident registration fee indicated below. All other fees are the same for non-residents.

A student under 18 years of age is considered a non-resident if the student's parents are not legal residents of Illinois. A student over 18 years of age is considered a non-resident if the student is not a legal

resident of Illinois at the time of registration. The Director of Admissions and Records is responsible for applying out-of-state fees. Tuition and fees are subject to change by action of the Board of Regents of the General Assembly.

Each Semester

Non-resident tuition 12 or more semester hours	\$532.50
Activity and General Service fee	33.50
University Union fee	38.00

Non-resident tuition, fewer than 12 hours, per hour	45.00
General Service fee*	10.00
University Union fee	19.00

***Students registered for more than six but fewer than 12 hours may purchase an activity ticket by paying the Activity and General Service fee of \$33.50 instead of the \$10 General Service fee. Students registered for more than six but fewer than 12 hours also pay the Student Health Service fee in order to obtain the services provided.

Eight-Week Summer Session

Non-resident fees, more than three semester hours	\$266.25
Non-resident tuition, three semester hours or less, per hour	45.00
General Service fee	8.00
University Union fee	9.50

REFUNDS

If a student withdraws officially from the University by the date given below, the Registration and Student Insurance fees are refunded.

No refund will be made to a student who withdraws after September 8, 1975 for the first semester or after January 3, 1976, for the second semester.

LIVING ACCOMMODATIONS

Inquiries regarding housing should be addressed to the Office of University Housing.

On Campus

The University operates both residence halls and family apartments. Full information and assistance in acquiring space in a residence hall suited to the in-

dividual student's particular life style will be provided by the Housing Office staff.

Off Campus

Apartments and rooms are available in the Bloomington-Normal community. Room rent varies from \$10 to \$20 per week. Apartment rental charges range from \$100 to \$300. A list of available accommodations in the community is maintained by the Housing Office.

Assistantships, Scholarships, Financial Aids and Employment

GRADUATE ASSISTANTSHIPS

Graduate assistantships are available in most of the departments of the University. In addition, assistantships are granted to men and women who serve as counselors in the University residence halls. In each instance, the graduate assistant is assigned responsibilities that contribute directly to the individual's professional career. Application for graduate assistantships should be made by the student to his departmental office.

The registration fees for a graduate assistant (other than tuition, which is waived) shall be the same as fees assessed any other graduate student, except that the \$13 insurance fee will be assessed every graduate assistant regardless of number of hours being taken.

STATE MILITARY SCHOLARSHIPS

Veterans may avail themselves of the provisions

of the State Military Scholarship Law, provided they have honorable discharges and were residents of the State of Illinois at the time they entered military service. These scholarships, which cover Registration and Activity fees for four years at the state supported universities only, are administered through the ISU Student Financial Aids Office. Educational programs under a State Military Scholarship must be completed in a six-year period and a leave of absence must be requested if a scholarship is not used in consecutive semesters.

LOANS

National Direct Student Loans are available from funds provided jointly by the federal government and the University. Graduate students may borrow up to \$2,500 per year not to exceed a total of \$10,000 during graduate work. These loans are based on proven financial need as determined by the Finan-

cial Aids Office through the University application for financial aid and completion of a Family Financial Statement. No repayments are due and no interest accrues until nine months after the student leaves school. The interest rate then becomes three percent per year and the borrower has up to ten years to repay the loan. The minimum repayment is \$30 a month.

Illinois Guaranteed Loan Program. Loans are made available to students through the Illinois Guaranteed Loan Program, which is designed for the family with less actual financial need, but who desire to utilize credit to meet college expenses.

If the borrower and his/her family can demonstrate financial need (in accordance with federally prescribed formulas) the Federal Government will pay the interest that accrues on the loan while he/she is a student.

During the repayment period the annual percentage rate of interest is 7%, and all borrowers must pay this interest as it accrues.

Applications for this program can be initiated either at a local participating bank, Credit Union, or at the ISU Student Financial Aids Office.

Short Term Loan Program. The Student Financial Aids Office offers an interest-free loan program for emergency educational expenses and should be sought when alternative resources are unavailable. Loans are available only to currently enrolled students and must be repaid within 30 days, or 20 days before the end of the semester, whichever occurs first. A fifty cents processing fee must be paid before funds may be obtained. Students may obtain no more than two loans per semester, or three per academic year. A \$10.00 service fee will be charged to any student who is delinquent in making full payment on or before the due date. Students must repay all short term loans before they will be permitted to register for a subsequent semester at ISU. Short term loans are to be repaid at the Cashier's Office, 105 Hovey Hall.

Philanthropic organizations and individuals have contributed to this loan fund over a period of years. Most of the loan funds are derived from donations made to the ISU Foundation.

EMPLOYMENT

COLLEGE WORK-STUDY PROGRAM (CWSP)

This federally sponsored program enables those students with exhibited need to earn a portion of their expenses while they are enrolled at Illinois State. The federal government pays 80% of Work-Study student's earnings, while the employer pays the balance. A student employed 10-20 hours per week can usually expect to earn between \$600 - \$1,200. Work-Study students may find jobs on campus (food service, library, union, department offices, etc.) or for non-profit off-campus agencies (hospitals, youth centers, counties, cities, elementary or secondary schools, etc.) Work-Study positions are posted on referral boards located outside the Student Financial Aids Office, Hovey 207-208. Students may then go directly to the employer for an interview and, if hired, must complete state and federal withholding tax forms in the Payroll Office, Hovey 101. Work-Study employers must also complete and return a Student Employment Form for all students hired.

As determined by federal regulations, students are not permitted to earn more than their Work-Study eligibility.

REGULAR (NON WORK-STUDY) EMPLOYMENT

Those students who desire to work on or off campus and who haven't been awarded Supplemental Educational Opportunity Grant (SEOG), National Direct Student Loan (NDSL), or College Work-Study funds are eligible for any part time employment positions on or off campus.

FOR VETERANS

Federal Benefits

Veterans or dependents of veterans who believe that they may be eligible for benefits should contact the Office of Student Financial Aids, Hovey Hall, either by mail prior to registration or in person soon after their arrival on campus.

Student Life and Services

UNIVERSITY HANDBOOK

The **University Handbook** provides information on University policies and regulations set up by student-faculty committees and by faculty and administrative agencies and officers, under the authority of the Board of Regents governing Illinois State University. The **Handbook** also describes the structure and functions of the University and its agencies.

The students, faculty and staff of Illinois State University constitute an academic community. The University affirms the Guidelines for Individual Action and the General Regulations as enunciated in the **Handbook**. Each member of the community should—when appropriate opportunities occur—reaffirm and communicate these statements, pointing out to those whose behavior is in violation of them that membership in this community implies adherence to them.

CULTURAL OPPORTUNITIES

The University Union serves as a center for student activities, social and cultural. Lectures, entertainments and art displays by faculty, students and off-campus persons are presented in this building.

Student organizations on the campus present many programs of aesthetic, dramatic and musical nature. There are also student forensic and athletic events.

The Entertainment Committee brings to the campus each year nationally known musicians, dancers, lecturers and stage personalities.

Civic organizations in Bloomington-Normal provide many musical and dramatic events.

Illinois Wesleyan University, located in Bloomington, presents additional cultural opportunities through its faculty, students and off-campus personalities and groups.

PLACEMENT SERVICE

The University maintains an active program of placement for graduates and alumni and endeavors

to keep constantly informed regarding the requirements of schools, businesses and governmental agencies.

The Placement Service makes a constant effort to follow up graduates in order to assist them to positions of responsibility commensurate with their experience and success in the field. All graduates who desire to secure professional and financial advancements should each year bring their credentials up to date in the Placement Service.

RESEARCH SERVICES AND GRANTS

The University's Office of Research Services and Grants is an information and coordinating center for faculty and students who wish to secure financial support from sponsoring agencies, to conduct research projects, training programs and public service activities. Projects and programs funded by federal agencies and private corporations constitute an important part of the University's involvement in research and development activities. This office serves as a catalyst to stimulate faculty and student interest in research projects, teaching experiments and community service programs. It provides help in locating appropriate funding sources for new academic endeavors; assists in the development of research proposals; and acts as liaison between the University and funding agencies.

ALUMNI SERVICES

Through the Alumni Office, the Alumni Association and Alumni Clubs, former students maintain contacts with one another and the University. The Alumni Office, which is located in Rambo House, keeps records on file for more than 44,000 alumni and serves as their headquarters when they are on campus.

The **Alumni News** is distributed quarterly to all alumni by the association. The association plans class reunions, hospitality rooms at conventions,

alumni meetings throughout the state, an alumni travel program, the annual alumni luncheons at Commencement and Homecoming, and other Homecoming activities. Recent projects of the Alumni Association include the ISU Alumni Sports Hall of Fame, increase in Alumni-Foundation scholarships, and the Distinguished Alumni Awards in Education.

In addition to the alumni club activities in Illinois, meetings are held in St. Petersburg and Miami, Florida; Southern California; Northern California; Phoenix, Arizona; Denver, Colorado; Washington, D.C., and New York City.

UNIVERSITY FOUNDATION AND DEVELOPMENT OFFICE

The Illinois State University Foundation is a not-for-profit corporation chartered by the State of Illinois for the sole purpose of serving Illinois State University. It does so by inviting, receiving, holding and administering gifts, grants and loans to support and enhance the regular activities of the University. Because the University achieves its greatest efficiency when its resources are assigned where their marginal yield is highest, the Foundation's first interest is to attract funds the uses of which are free of restriction. Nevertheless, the Foundation encourages prospective donors or contributors to exercise the

right to specify the use to be made of their funds provided the overall interest of the University is served thereby. Alumni and other friends of the University who seek further information about the purpose of the Foundation, or ways in which they may make contributions to the Foundation, should confer with a representative of the Foundation or Development Office.

The Development Office is responsible for creating and carrying out a long-range program for expanding the amount of voluntary financial and other support for the University. Such voluntary support is used to provide scholarships, fellowships, student loans, research grants, equipment, and special purpose academic projects, buildings and facilities not likely to be provided by legislative appropriations. Because the University must use State funds primarily for additional classrooms and laboratories and for salaries, the support which the Office of Development can generate from individuals, industry and private foundations provides the Margin of Excellence which enables ISU to continue to be a creative and progressive force in higher education. The Development Office, in actively seeking voluntary support for the University, is carrying on the tradition established by the University's founders, whose solicitation of gifts of money and land made the establishment of the University possible.



Fields of Study and Degrees Granted

Art	M.F.A., M.A., M.S. in Ed. Ed.D.
Biological Sciences	M.S., M.S. in Ed., Ph.D.
Business (Accounting and Business Administration)	M.A., M.S.
Business Education	M.A., M.S., M.S. in Ed.
Chemistry	M.S., M.S. in Ed.
Counselor Education	M.A., M.S., M.S. in Ed.
Economics	M.A., M.S., D.A.
Educational Administration	M.A., M.S., M.S. in Ed., Spec. in Ed. Ed.D., Ph.D.
Elementary Education	M.A., M.S., M.S. in Ed.
English	M.A., M.S., M.S. in Ed.
French	M.A.
Geography	M.A., M.S., M.S. in Ed.
Health, Physical Education and Recreation	M.A., M.S., M.S. in Ed.
History	M.A., M.S., M.S. in Ed., D.A.
Home Economics	M.A., M.S., M.S. in Ed.
Industrial Technology	M.A., M.S., M.S. in Ed.

Instructional Media	M.S., M.S. in Ed.
Mathematics	M.A., M.S., M.S. in Ed., D.A.
Music	M.A., M.S., M.M., M.M.Ed.
Political Science	M.A., M.S.
Psychology	M.A., M.S.
Reading	M.S. in Ed.
School Psychology	M.A., M.S., M.S. in Ed.
Sociology	M.A., M.S.
Spanish	M.A., M.S. in Ed.
Special Education	M.A., M.S., M.S. in Ed.
Speech Communication	M.A., M.S., M.S. in Ed.
Speech Pathology and Audiology	M.A., M.S., M.S. in Ed.
Supervision	M.A., M.S., M.S. in Ed.
Theatre	M.S. in Ed., M.F.A., M.A., M.S.
Western European Studies	M.A.

Students may complete programs for secondary or college teaching in all departments in addition to "straight" master's programs. See page 19.

Master's Degrees

CREDIT REQUIREMENTS

Masters' degrees are offered in the fields indicated above. The minimum credit requirement for the masters' degree is 32 semester hours. A student may elect one of two alternate plans for the degree or meet specific departmental requirements listed under the departmental listing. One may elect to do a thesis for which the student may receive from four to six hours of credit in Independent/Research 499, or elect

to do 32 hours of course work and take a comprehensive examination. The student may not present credits in Independent Research 499 toward the degree unless his thesis is completed and approved for deposit in the Graduate School Office.

In the arts and science master's programs, including those for college and secondary teaching, a student must present, exclusive of Independent Research 499, at least 12 of the 32 hours in courses numbered at the 400 level, eight hours of which must

be in his major field. A total of at least 16 semester hours of work must be in the major field (counting courses at the "300" level and above). Remaining credits may be in such related fields as the student's adviser recommends, with the exception that in the teaching programs certain courses in education and psychology are specified.

A student should check carefully with the adviser the departmental requirements for master's degrees, since the above regulations indicate only minimums set by the Graduate School.

GENERAL DEGREE REQUIREMENTS

Degrees offered are listed with each department's offerings. Students should note any special requirements in their respective fields.

Master of Arts

The Master of Arts degree is awarded to a student who has completed an appropriate program, as designated in this catalog, provided the following requirements are met: The student must have earned credit for a minimum of two years of a foreign language at the college level, or must demonstrate a reading knowledge of a foreign language. In some departments this must be French or German (see departmental regulations). The student also must have earned a minimum of 32 semester hours of credit in the humanities and social sciences in addition to work in foreign language. These requirements in foreign language, humanities, and social sciences may be met by satisfactory work at either the graduate or undergraduate level.

Master of Science

The Master of Science degree is awarded to students who complete requirements for the degree as designated in the departmental offerings in this catalog.

Master of Science in Education

The Master of Science in Education degree may be awarded to students who have met the requirements of one of the graduate programs in professional education in the University.

Master of Music and

Master of Music Education

Requirements for these degrees are listed in the section devoted to the Music Department.

Master of Fine Arts (Art and Theatre)

Requirements for these degrees are listed on pages 22 and 23.

COLLEGE TEACHING PROGRAM REQUIREMENTS

This program is designed for students desiring an internship experience and a basic seminar concerning the nature of college teaching. Students should register for Internship in College Teaching 491 and Seminar in College Teaching 474.

Students planning to teach in junior colleges requiring certification may need to take work beyond the 32 hours required for the degree. They should obtain information as to the certification rules of the state in which they desire to teach in order to include the necessary courses in their programs. The Department of Educational Administration offers several courses concerned with the junior or community college.

SECONDARY TEACHING PROGRAM

This master's program for secondary teachers assumes that the student will have completed undergraduate work for certification, and it is designed to provide a master's degree in the student's discipline, with appropriate professional electives. Students needing to meet certification requirements should plan to take such additional courses in education or psychology as will satisfy certification requirements in the states in which they desire to teach.

A student in the master's degree program for secondary teaching must take Curriculum and Instruction 475, Introduction to Research, or an approved alternate course offered by the student's own department. In addition six hours must be selected from the following courses:

Measurement and Evaluation in
Education 387 (3)

List continued on Page 20.

Curriculum Theory 476 (3)
A graduate course in historical, social, or philosophical foundations of education
Principles of Guidance 360 (3)
Independent Study in Curriculum and Instruction 400 (1-4)
Advanced Educational Psychology 416 (3)

The remainder of the course work is taken in the student's major department. Students should note requirements listed with departmental offerings in this catalog and should consult advisers concerning their programs.

RESIDENCE REQUIREMENTS

A candidate for a master's degree must spend at least on full term in residence in order to qualify for the degree. A full term may be interpreted as one semester, with a class load of 8-15 hours, or a summer session with a class load of from 6-9 hours.

TIME LIMITS

All graduate credit used in meeting requirements for the degree must be earned within a period of six years.

TRANSFER AND EXTENSION CREDIT

On approval of the Dean of the Graduate School, a student holding a bachelor's degree from this University may present a maximum of eight semester hours of graduate credit from another college or university for use in meeting the requirements of the master's degree. A student who holds a bachelor's degree from another college or university may present a maximum of six semester hours of graduate credit earned at another college or university. An exception to this would relate to students wishing to transfer credit from any member institution of the Academic Affairs Conference of Midwestern Universities. On approval of the Dean of the Graduate School a student may present up to half of the semester hours necessary for meeting the requirements of the master's degree from any member

institution if the courses meet the academic and degree requirements of the applicable department. Present member institutions include Ball State University, Illinois State University, Indiana State University and Northern Illinois University. Under certain circumstances this exception may be extended by the Dean of the Graduate School to other colleges or universities with the approval of the department in which the student wishes to enroll. A departmental evaluation of the courses presented will be necessary prior to the approval of the Graduate Dean. A student who plans to take courses elsewhere is advised to have such work approved in advance to make sure that the courses are appropriate for the student's curriculum at Illinois State University.

Not more than six semester hours of graduate extension work from universities other than Illinois State University may be applied toward the master's degree. **For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus, beginning with the Second Semester 1973-74.** Correspondence courses are not accepted toward a master's degree. Forms for requesting transfer of credit may be obtained in the Graduate Office, Hovey Hall.

ACADEMIC ADVISERS

Each student has an academic adviser to assist in planning the student's work. This adviser should be consulted regarding the sequence of courses, the selection of electives, and the option of thesis or comprehensive examination.

If a student follows a curriculum of specialization in a subject-matter field, the chairperson of the department concerned is the academic adviser unless another faculty member has been appointed by the chairperson. This plan applies to all secondary and college teaching curricula, also elementary education with departmental specialization. In other curricula, other academic advisers have been appointed.

An advisory committee is appointed for each student who writes a thesis. This committee is responsible for directing the thesis project, recommending the student for admission to candidacy for the degree and conducting the final examination.

If a student chooses the option of a comprehensive examination, the academic adviser has the responsibility of recommending the individual for admission to candidacy and conducting the final examination.

PROGRAM APPROVAL REQUIRED

At registration, each student's program should carry the approval of the academic adviser. If a program does not have such approval there is no assurance that the courses can be used in meeting the requirements for the degree.

ADMISSION TO CANDIDACY

To be admitted to candidacy for the master's degree the student must file a Plan of Study with the Dean of the Graduate School. This is done on forms obtained in the departmental office. At the time of filing all deficiencies must be removed and the candidate must meet the requirements of the University regarding scholarship (Page 30). Normally the student applies for admission to candidacy when approximately half of the work toward the master's degree has been completed and must do so before the beginning of the semester or summer session in which the candidate expects to receive the degree. The Plan of Study must indicate whether the student has selected the comprehensive examination or the thesis option. If the student is offering a thesis as part of the work for the degree, the thesis proposal (see below) must have been filed with the Dean of the Graduate School.

THESIS

A student electing the thesis option must register for from four to six hours of 499, Independent Research for the Master's Thesis, as approved by the adviser. To register for 499 he must actually be working on the subject under the direction of the adviser or thesis chairperson. No grade will be given for the course but credit will be entered on the student's record at the time the approved thesis is deposited in the Graduate School Office. No credit for 499 may be

offered for the master's degree by a student who does not complete a thesis.

A thesis is written under the direction of an advisory committee appointed by the department chairperson. A student must be admitted to a degree program in the Graduate School before a thesis committee can be appointed.

The title, scope and design of each proposed thesis must be approved by the student's advisory committee and the department chairperson. This approval must be received before a student may apply for admission to candidacy. In order to allow time for review, the student is required to file an approved **Proposal for Research** with the Dean of the Graduate School early in the semester preceding the one in which completion of the master's degree is expected. Forms for submitting the proposals are available in the Graduate Office.

There is no assumption of uniformity in thesis research. For example, a student may propose a creative project in art or music. In each instance, however, the completed project must meet approved standards of scholarship in the chosen field of study. In each instance there must be evidence of ability to think logically, to gather and organize material, to draw and defend conclusions and to present the results of the foregoing procedures in a creditable manner.

THESIS CONSULTANT

A thesis consultant approves all theses for the Graduate School before they are officially accepted. The student is urged to consult the thesis consultant of the Graduate School as soon as a preliminary draft of the first part of the thesis has been completed and has received approval of the thesis committee. At this time the thesis consultant will counsel the student regarding problems such as those related to format, footnotes, illustrations and the use of language.

Before a thesis is deposited in the Graduate School Office, it is the responsibility of the thesis consultant of the Graduate School to examine the materials and to make sure that the report is neatly and correctly typed; is free of technical errors in format, footnoting, and bibliography; suitable for binding, and reflects credit upon the University and its

graduate program. If the form of the thesis is not thus approved, the student must make whatever corrections are necessary and submit the materials again.

A descriptive note or annotation of not more than thirty words and an abstract of not more than three hundred words must be approved by the advisory committee and must accompany the thesis when it is filed in the Graduate School Office.

After approval by committee members and the thesis consultant for the Graduate School, the student must file two unbound examination (carbon) copies of the thesis in the departmental office at least one week (seven days) before taking the oral examination. It is the student's responsibility to retrieve these examination copies shortly before the oral examination. The adviser has the responsibility of notifying members of the department and the Graduate School office that the copies have been made available for examination and the time and place of the oral examination.

Following the examination the student must file the original copy and the second copy of the approved thesis, with any corrections suggested by the orals committee, unbound, in the Graduate School Office. To be eligible for graduation a student must deposit the thesis in the Graduate School Office at least 10 days before the end of the semester. Theses filed after that date will be credited toward graduation the following semester or session.

EXAMINATIONS

An examination, oral, written, or both, must be taken by each student before receiving the master's degree. This examination covers the graduate work which the student is presenting for the degree. The time, place and nature of the examination are determined by the student's advisory committee if the student selects the thesis option. The comprehensive examination is the responsibility of the department.

Master of Fine Arts

Department of Art

PROGRAM REQUIREMENTS

ADMISSION

All regular criteria for admissions to a terminal degree program in the Graduate School of the University will apply with the exception of the GRE requirement.

In the Department of Art the graduate student must be accepted by the Art Department. This will require the submission of a portfolio of the student's work, an example of scholarly writing and three letters of recommendation. This material will be reviewed by the members of the studio faculty in the student's intended area of concentration. After final

admission evaluations have been completed, Admissions and Records will notify the student of admission to the Master of Fine Arts Program. The student not recommended for admission to the Master of Fine Arts Program will receive an evaluation of deficiencies; the evaluating committee will recommend courses or other experiences to remove the deficiencies. After removing the deficiencies the student may reapply for admission. The student may reapply for admission only once.

ACADEMIC ADVISERS

The pre-candidacy MFA student selects a major advisor with the help of the Director of Graduate Studies. After the student is admitted to candidacy, the Chairperson of the Department, in consultation with the student and the student's major adviser, will select a graduate committee of at least three

members. The chairperson of this committee must be from the student's major area of study. Members of this committee are appointed by the Graduate School following a joint recommendation of the student and chairperson of the student's graduate committee. This committee will review the student's graduate show and conduct and evaluate the student's written and/or oral comprehensive examination.

CURRICULUM REQUIREMENTS

A minimum of 60 semester hours of graduate work beyond the bachelor's degree is required for the MFA in Art. For a detailed explanation of this requirement see information under departmental heading.

TRANSFER AND RESIDENCE

Students who hold no earned Master's Degree can transfer no more than nine hours into this program. Completed Master of Arts and Master of Sciences degrees may be evaluated for transfer. Such evaluation will be based upon both the student's portfolio and academic record. However, this evaluation will not be made until the student has completed a minimum of six semester hours in the student's major studio area at Illinois State University. The student must complete 32 semester hours at Illinois State University and meet the residence requirements.

After receiving the bachelor's degree, a student seeking the Master of Fine Arts degree must complete at this University the equivalent of at least four semesters with at least two of them being full time, consecutive semesters. Summer sessions may not be counted toward the two consecutive semester requirement.

TIME LIMITATIONS

All work for the Master of Fine Arts degree must be completed within six calendar years after the student begins study toward the degree. If the student does not complete the work within this time, additional examinations, or additional course work, or both, may be required in order to continue in the Master of Fine Arts Program.

ADMISSION TO CANDIDACY

To be admitted to candidacy, the student must present a grade average of B or better with no more than 5 hours of C, and a plan of study must be on file with the Dean of the Graduate School. The student may be admitted to candidacy after completing 24 hours of graduate study at Illinois State University or after two semesters of resident study.

The student will present a portfolio and any additional requested material to a review committee for evaluation. his committee will consist of the student's major advisor, the Director of Graduate Studies in Art and at least two other faculty members with whom the student has worked or who have special interests or competencies in the student's area of study.

Department of Theatre

PROGRAM REQUIREMENTS

ADMISSION

All regular criteria for admission to a terminal degree program in the Graduate School of the University and for graduate study in Theatre will apply with the exception of the GRE requirement.

Graduate students who hold no master's degree will be admitted to the MFA program only after completing 12 graduate hours in theatre courses at ISU or upon recommendation of the department's graduate faculty. After completing 12 hours, the student will be permitted to audition by portfolio and performance. The audition will be evaluated by the graduate faculty. A written evaluation of the candidate will be presented to the department chairperson. If not recommended for admission, the student will receive an evaluation of deficiencies; the Evaluation Committee will prescribe courses or other experiences to remove the deficiencies. A student may reapply for admission only once.

ACADEMIC ADVISERS

After the student is admitted to the MFA

program, the chairperson of the department in consultation with the student and appropriate faculty, will select the candidate's Portfolio Committee. The committee chairperson must come from the student's major field.

CURRICULUM REQUIREMENTS

A minimum of 60 semester hours of graduate work beyond the bachelor's degree is required for the MFA in Theatre. For a detailed explanation of this requirement see information under departmental heading.

TRANSFER AND RESIDENCE

Students who hold no earned **Master's Degree** can transfer no more than **six semester hours** of credit into this program. Completed M.S. or M.A. degrees may be evaluated for transfer after the student has completed eight semester hours at Illinois State University. A minimum of 32 hours must be taken at Illinois State University.

The candidate must spend at least two consecutive full terms in residence. A full term may be interpreted as one semester, with a class load of 8-15 hours, or a summer session with a class load of 6-8 hours.

TIME LIMITATIONS

All work for the Master of Fine Arts degree must be completed within six calendar years after the stu-

dent begins study toward the degree. If the student does not complete the work within this time, additional examinations or additional course work, or both, may be required in order to continue in the Master of Fine Arts Program.

ADMISSION TO CANDIDACY

After admission to the MFA program the student must apply for admission to candidacy. To be admitted to candidacy, the student must present a grade average of B or above with not more than six hours of C. The student may be admitted to candidacy after completing 24 hours of graduate credit in theatre at Illinois State University, or two semesters of full-time resident study and a plan of study must be on file with the Dean of the Graduate School. A review of the student's admission to the candidacy will be conducted by the graduate faculty of the Department.

QUALIFYING EXAMINATION

A qualifying examination is required prior to admission to candidacy. It may be comprehensive to the extent that it examines the candidate's knowledge of the discipline of theatre; it may include graduate work the student is presenting for the degree, and it may include demonstration of proficiency. The examination will be conducted by the graduate faculty of the Department. The student may request that other faculty members with whom he or she has taken course work participate in the qualifying examination.

Specialist in Education

PROGRAM REQUIREMENTS

ADMISSION

A student seeking admission to a program leading to the Specialist in Education degree must

present letters of recommendation and must take qualifying examinations before being admitted to the program. The student may be required to come to the campus for an interview.

Admission of an applicant to a specialist degree program will take account of personal and

professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

While the specialist program is a complete program and is usually terminal, a person completing a specialist degree is not precluded from entering a doctoral program. The student should not expect to be able to transfer all specialist course work to a doctoral program, however, since some work appropriate to the one degree will probably not be appropriate to the other. Similarly a doctoral candidate may not expect to abandon the program and accept a specialist degree as compensation for a partially fulfilled program.

ACADEMIC ADVISERS

The head of the department with the approval of the Dean of the Graduate School, appoints an academic adviser for each student admitted to a specialist degree program. If the student is pursuing a minor field of study, as well as a major field, the adviser, in approving the student's program, should obtain the advice of the department representing the student's minor field. At the time of each registration, the academic adviser files copies of the student's program with the heads of departments concerned and with the Dean of the Graduate School.

CURRICULUM

A student selecting the specialist degree must select a major field of study, and a supporting program approved by the academic adviser, the Dean of the Graduate School, and the department directly involved.

TRANSFER AND RESIDENCE

A student seeking the specialist degree may petition to transfer, from another institution, not to exceed six semester hours of graduate credit beyond the master's degree. The Dean of the Graduate School must approve all transfer credit used in meeting the requirements for the specialist degree.

A student seeking the specialist degree must,

after receiving master's degree, complete at this University the equivalent of at least one academic year of graduate work. This must include one semester in which the student is in residence; or one summer in which the student is in residence for eight consecutive weeks. A student is considered to be in residence when the student devotes a major part of the time to graduate study and research on the campus.

A student will not be considered in residence while employed full time.

With departmental approval not more than six semester hours of graduate extension work from universities other than Illinois State University may be applied to the specialist degree. For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus, beginning with the Second Semester 1973-74. Such courses or seminars offered off campus must be taught by regular or associate members of the Graduate Faculty of this university, with the exception of the Cooperative Specialist degree program with Sangamon State University (see Educational Administration), the above requirements apply.

TIME LIMITATIONS

The specialist degree is not granted on the basis of a student having successfully completed a certain number of courses, but upon evidence of scholarly attainment as demonstrated especially by examinations and competence in research.

Although course credit is not the primary basis for granting the specialist degree, a student is not eligible to take the final examination until the latter part of the session in which thirty semester hours of work beyond the master's degree is completed. More than two semesters may be necessary to complete all requirements for the degree.

All work for the specialist degree must be completed within six calendar years after the student begins work beyond the master's level. If the student does not complete the work within this time, the student may be required to take additional examinations, or additional course work, or both, in order to continue in the specialist program.

ADMISSION TO CANDIDACY

A student seeking the specialist degree may be admitted to candidacy after (a) removal of any deficiencies assessed at admission, (b) approval of a proposal for research, and (c) approval by the academic adviser of a plan of study leading to the specialist degree.

RESEARCH

A student seeking the specialist degree is required to complete a research project that gives evidence of scholarly attainment and capacity for independent investigation appropriate to the degree.

The Dean of the Graduate School appoints the

student's research committee which includes the academic adviser. The topic and research design must be approved by the Dean of the Graduate School and the department representing the student's major field. The entire committee shares the responsibility for the research project although the academic adviser may work more directly with the student.

FINAL EXAMINATION

The Dean of the Graduate School appoints a committee which is responsible for the final examination. This examination may be oral, written, or both. The committee includes the student's academic adviser, as well as other members of the graduate faculty.

Doctor of Arts

PROGRAM REQUIREMENTS

ADMISSION

All regular criteria for admission to a terminal degree program in the Graduate School of the University will apply. A student seeking admission to a doctoral degree program must present letters of recommendation and must take qualifying examinations before being admitted to the program. Admission to the program ordinarily requires at least previous successful teaching experience and a level of training equivalent to a master's degree in the discipline they wish to enter. Candidates for admission who do not meet departmental requirements will be considered on an individual basis and may require a personal interview.

Admission involves approval by the department as well as the Graduate School.

ACADEMIC ADVISER

The chairperson, with the approval of the Dean

of the Graduate School, appoints an academic adviser for each student admitted to a doctoral program. The adviser is responsible for approving the student's program of courses with the advice of departments representing, when applicable, both major and minor fields. Normally this function is assumed by the chairperson of the student's dissertation committee after the committee has been named. At the time of each registration, the academic adviser files copies of the student's program with the department chairpersons concerned and with the Dean of the Graduate School.

REQUIRED COURSES AND FIELDS

A doctoral student may select both a major and a cognate field (or fields) of study. The selection of cognate field (or fields) must have the approval of the Dean of the Graduate School and the department directly involved. A cognate field may, under certain circumstances, be in the same department as a major field.

RESIDENCE

A Doctor of Arts student, after completing work for a master's degree, or its equivalent must complete at least one semester of full time residency. The normal residence requirement is one year; but commuter students who make continuing progress in the program may have the residence requirement reduced to one semester. Continuing progress for a commuter student is defined as taking one course each semester and a full load each summer session.

A student will not be considered in residence while employed full-time.

With departmental approval not more than six semester hours graduate extension work offered by universities other than Illinois State University may be applied to the doctoral degree. For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus, beginning with the Second Semester 1973-74. Such courses or seminars offered off campus must be taught by full or associate members of the Graduate Faculty of this university.

TIME LIMITATIONS

The Doctor of Arts degree is not granted on the basis of a student having successfully completed a certain number of courses, but after the candidate has demonstrated the required competency in the field.

All work for the Doctor of Arts degree, including the dissertation, must be completed within seven calendar years after the student is admitted to a Doctor of Arts program.

PRELIMINARY EXAMINATIONS AND ADMISSION TO CANDIDACY

A doctoral student may be admitted to candidacy after: (a) passing a comprehensive preliminary examination, (b) a plan of study is submitted to the Graduate Dean and approved, and (c) receiving approval of the dissertation topic by the dissertation committee and the Dean of the Graduate School. The preliminary examination which may be written,

oral, or oral and written will cover both major and minor fields. It will be concerned with (1) the student's professional competence in Higher Education and (2) assessment of the student's ability to apply his/her knowledge to problems of teaching and curriculum development in his area.

The Dean of the Graduate School appoints the examining committee which includes the student's academic adviser and a representative of the minor field (or fields).

DISSERTATION FOR THE D.A.

Each candidate will be expected to complete a dissertation which is original and either (1) has relevance to the profession of college teaching, or (2) is an applied research topic which demonstrates a combination of scholarly, analytical, creative, and expository skills. The dissertation for the D.A. may involve the application of existing knowledge or theory to a practical educational problem or situation.

The Dean of the Graduate School appoints a dissertation committee of not less than five (5) members, one of whom shall be the member outside the department and represents the graduate faculty, the chairperson will act as the student's academic adviser. The topic of the dissertation must be approved by the committee and Dean of the Graduate School.

The student is not required to have the dissertation printed but will be required to pay the expense of microfilming for distribution by University Microfilms. The University may publish part or all of the dissertation.

REGISTRATION FOR DISSERTATION WORK

A candidate for the doctorate who has completed course work must register for Dissertation 590 recommended by the department during the semester or summer session in which the final oral examination is taken, and in any semester or summer session in which the student holds an assistantship or fellowship, or in which the student wishes to use University facilities.

DOCTOR OF ARTS continued on Page 28.

FINAL EXAMINATION

This examination may be oral, written, or both,

and may be concerned with more than the dissertation topic. The result of the examination will be determined by the dissertation committee but any member of the graduate faculty may attend.

Doctor of Philosophy and Doctor of Education

PROGRAM REQUIREMENTS

ADMISSION

A student seeking admission to a doctoral degree program must present letters of recommendation and must take qualifying examinations before being admitted to the program. The student may be required to come to the campus for an interview.

Admission of an applicant to a doctoral program will take account of personal and professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

ACADEMIC ADVISER

The chairperson, with the approval of the Dean of the Graduate School, appoints an academic adviser for each student admitted to a doctoral program. The adviser is responsible for approving the student's program of courses with the advice of departments representing, when applicable, both major and minor fields. Normally this function is assumed by the chairperson of the student's dissertation committee after that committee has been named. At the time of each registration, the academic adviser files copies of the student's program with the department chairpersons concerned and with the Dean of the Graduate School.

REQUIRED COURSES AND FIELDS

A doctoral student may select both a major and a minor field (or fields) of study. The selection of minor field (or fields) must have the approval of the Dean of the Graduate School and the department directly involved. A minor field may, under certain circumstances, be in the same department as a major field.

RESIDENCE

A doctoral student, after completing work for a master's degree, or its equivalent, must be enrolled for at least four semesters of graduate work offered by Illinois State University, including at least two consecutive semesters in full-time residence at this University. Work in summer sessions may not be used in meeting this requirement of two consecutive semesters. A student is considered to be in full-time residence when devoting a major portion of time to graduate study and research on the campus.

A student will not be considered in residence while employed full-time.

With departmental approval not more than six semester hours graduate extension work offered by universities other than Illinois State University may be applied to the doctoral degree. For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus, beginning with the

Second Semester 1973-74. Such courses or seminars offered off campus must be taught by regular or associate members of the Graduate Faculty of this university.

TIME LIMITATIONS

The doctoral degree is not granted on the basis of a student having successfully completed a certain number of courses, but upon evidence of scholarly attainment as demonstrated especially by examinations and competence in research.

All work for the doctorate, including the dissertation, must be completed within eight calendar years after the student begins work beyond the master's level. If the student does not complete the work during this time, the student may be required to take additional qualifying examinations, or additional course work, or both, in order to continue in the doctoral program.

LANGUAGE REQUIREMENTS FOR THE Ph.D.

All candidates for the Ph.D. must meet appropriate standards in oral and written English. In addition, the general requirement for the degree is a reading knowledge of two foreign languages chosen from French, German, Russian or other approved languages. In some fields the native language of a foreign graduate student may be offered in fulfillment of a foreign language requirement.

In all cases the department involved shall furnish evidence of its approval of a student's choice of language as well as a substantial body of knowledge pertinent to the field of inquiry and may furnish evidence that the candidate has proficiency in that language.

By petition, the student may substitute a more advanced knowledge of one language for a reading knowledge of two. In either case the Department of Foreign Languages has the responsibility of certifying that the language requirement has been met. A reading examination is given from an article or book in the candidate's field. The use of a dictionary is permitted. Advanced knowledge of a single foreign

language is demonstrated by skills sufficient to give and to comprehend lectures in the field of specialization, to respond to questions relating to the specialization as well as to read the language without the aid of a dictionary. Language examinations are given according to a schedule published in the annual calendar.

The Graduate School permits the substitution of other research tools or competencies for one of the two foreign language requirements, where such substitutions are particularly appropriate to the field involved. Departmental alternatives are described with departmental offerings in this catalog.

RESEARCH TOOLS FOR THE Ed.D.

Ed.D. candidates who are not required to offer foreign languages as research tools are expected to have developed other competencies appropriate for doctoral candidates in their fields. These may involve proficiencies in such areas as statistics, measurement and evaluation, research techniques and experience in field survey work or special course work.

As in the case with ability to use a foreign language, some research skills may be the product of undergraduate and early graduate work. The concern of the Graduate School is that the doctoral candidates be able to understand the research work of leading scholars in their fields, that they master the processes which enable them to do productive research themselves, and that they be able to report the research findings clearly to others.

PRELIMINARY EXAMINATIONS AND ADMISSION TO CANDIDACY

A doctoral student may be admitted to candidacy after: (a) meeting the foreign language requirement or alternate approved program, (b) passing a comprehensive preliminary examination, and (c) receiving approval of the dissertation topic.

The comprehensive preliminary examination is written, or, written and oral. It covers both major and minor fields. It also is concerned with the student's professional competence and ability to undertake in-

dependent research.

The Dean of the Graduate School appoints the examining committee which includes the student's academic adviser and a representative of the minor field (or fields).

DISSERTATION FOR THE Ph.D. AND Ed.D.

The doctoral candidate is encouraged to select a dissertation topic early in the work and to plan course work with the advice of the dissertation committee. The Dean of the Graduate School appoints a dissertation committee of not less than three members, the chairperson of which acts as the student's academic adviser. The topic of the dissertation must be approved by the Dean of the Graduate School as well as this committee. The entire committee shares responsibility for the dissertation although the chairperson may work more directly with the student.

The dissertation for the Ph.D. must involve independent research and an original contribution to knowledge. While the dissertation for the Ed.D. may meet the above requirements, it is customary to allow greater flexibility for the Ed.D. dissertation, so that it may, for instance, involve the application of existing knowledge or theory to a practical educational problem or situation.

The dissertation must be approved by the dissertation committee, as well as the final examination committee appointed by the Dean of the Graduate

School. This committee represents the University at large.

The student is not required to have the dissertation printed but will be required to pay the expense of microfilming for distribution by University Microfilms. The University may publish part or all of the dissertation.

REGISTRATION FOR DISSERTATION WORK

A candidate for the doctorate who has completed course work must register for Research 590 or a similar course recommended by the department during the semester or summer session in which the final oral examination is taken and in any semester or summer session in which the student holds an assistantship or fellowship, or in which the student wishes to use University facilities.

FINAL EXAMINATION

The Dean of the Graduate School appoints a committee which is responsible for the final examination. This examination may be oral, written, or both, and is concerned with more than the dissertation topic. The committee includes the student's academic adviser, as well as other members of the graduate faculty.

Academic Procedures and Regulations

GRADING SYSTEM, SCHOLARSHIP AND OTHER REQUIREMENTS

Passing grades in the Graduate School are A, B and C, which represent grade points of 4, 3 and 2, respectively, in figuring grade point averages. Courses completed at this University with

grades below C may not count toward a degree, but these grades C, D and F are counted in computing the average. If a graduate student repeats a course, both grades are counted in computing the average.

A student must have at least a B average in work done at this University in order to be admitted to can-

didacy for a degree. For graduation a B average is also required. The Dean, in consultation with the student's adviser, may ask a student whose work is unsatisfactory to discontinue graduate work or grant a probationary period in which to bring work up to required standards. A student who fails to bring the total record up to a B average during the probationary period will not be permitted to register for further graduate work.

It is the student's responsibility to make a formal request for the transfer of any credit which the student proposes to use in meeting requirements at this University. Transfer credit must carry a grade of B or better.

The last course or courses before graduation must be completed with this University.

The Council may deny admission to the University, or registration at any time or admission to candidacy for the degree, upon the basis of unsatisfactory scholarship, or what in their judgement is unfitness for teaching on physical, moral, mental or emotional grounds.

WITHDRAWALS

A grade of W will be recorded for each course from which a student withdraws officially by filing the proper form with the Registration Office.

A student may not withdraw from a course after the fourteenth week of a semester or after the sixth week of a summer session. The last day of the seventh week is the final withdrawal date for nine-weeks courses during a regular semester. Specific final dates for withdrawals during the two semesters of the academic year are published in the class schedule booklet for each semester. Specific dates for withdrawals during the summer session are published in the Summer Session Catalog. In a case involving prolonged illness, a student may be permitted to withdraw at a later date if such withdrawal is recommended by the University Health Service.

A grade of F will be given to a student who withdraws unofficially from a course. Withdrawal will be considered unofficial after three weeks of unexplained absence or by the close of the semester, whichever is the shorter time.

A student who wants to withdraw from all

courses should initiate a withdrawal from the University in the Office of Admissions and Records. In case of accident of illness, which would make withdrawal in the regular way impossible, a letter signed by the student and sent to the Office of Admissions and Records explaining the situation will be sufficient.

The student should arrange with the Financial Aids office to place any scholarship on leave or cancel it and arrange a payment plan for any loans.

A grade of F will be given to a student who withdraws from all courses without initiating a withdrawal from the Admissions and Records office.

RELIGIOUS OBSERVANCES

The University will **reasonably** accommodate its students, faculty and staff who are unable to fulfill their regular duties on the occasion of a religious observance. Faculty and staff should observe normal procedures for absence from their duties. Students who are unable to attend class or take examinations for religious reasons will be given information needed to make up classes and work which were missed or to take the examination on an alternate, acceptable day.

INCOMPLETES AND DEFERRED GRADES

An I (incomplete) will be given a student who is doing passing work but who, because of illness or other justifiable reasons, finds it impossible to complete the work by the end of the semester or session. The student must be in class to within three weeks of the close of the semester or one week of the summer session and the quality of the work must be such that the student can complete it through special assignments and examinations. Incompletes should be cleared during the next semester or session a student is in school and must be cleared before one year has elapsed. A deferred grade (De) is usually given in research courses leading to a thesis or dissertation if the work is not completed by the end of the semester or session.

A student expecting to graduate at the end of any semester or session should be sure to

have incompletes cleared in the Office of Admissions and Records at least three weeks before the end of the semester in order to give adequate time for the records to be cleared for graduation.

ACADEMIC LOAD

Twelve hours is the usual load for the graduate student during the semester. The maximum academic load for graduate students is 15 semester hours.

In the eight-week summer session the maximum load is nine semester hours. It is recommended that a fully employed person not enroll for more than six hours during any semester.

If a student holds an assistantship the academic class load is adjusted accordingly.

AUDITING PRIVILEGES

A student may register as auditor, attending class without participation and without credit. Registration must have the approval of the instructor. Registration as an auditor is performed separately

through the Office of the Registrar. The auditor fee is indicated in the section on cost. Students who are registered for seven or more hours for credit may audit courses free of charge.

GRADUATION

A student must apply for graduation in the Graduate Office, 310 Hovey Hall, before the deadlines specified for each session in the calendar in this catalog. At the time application is made, the graduation fee of \$15 must be paid.

COMMENCEMENT

Degrees are conferred and diplomas awarded after the close of each semester and summer session. Commencement is held once each year at the end of the spring session. Participation is voluntary. Graduate students who expect to complete degree requirements prior to May commencement may participate in that commencement. Those who will finish their degree requirements after May commencement may participate in the following commencement during the next academic year.

Colleges of the University

Faculty and academic programs at Illinois State are organized into five colleges.

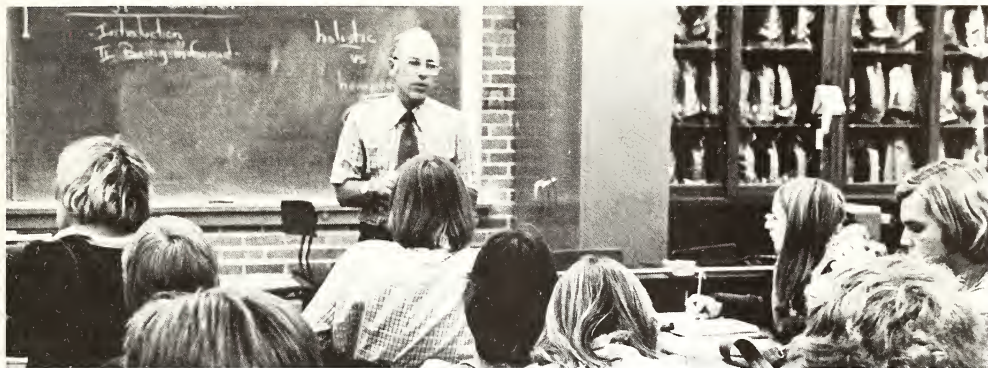
COLLEGE OF APPLIED SCIENCE AND TECHNOLOGY

The Departments of Agriculture, Home Economics and Industrial Technology, and Health, Physical Education and Recreation, the Center for Allied Health Professions, and the Program in Corrections constitute the College of Applied Science and Technology. Undergraduate and graduate programs of the College are designed to prepare students for positions as professional

educators in all types of educational institutions as well as for non-teaching vocational and technical careers.

COLLEGE OF ARTS AND SCIENCES

The primary purpose of the College of Arts and Sciences is to provide students the opportunity to become liberally educated. The College includes the Departments of Biological Sciences, Chemistry, Economics, English, Foreign Languages, Geography-Geology, History, Information Sciences, Mathematics, Philosophy, Physics, Political Science, Psychology, Sociology-Anthropology, and Speech



Pathology-Audiology. The College offers the core of the University Studies program required of all undergraduates, a wide range of academic major and minor programs for meeting baccalaureate degree requirements, master's programs in most disciplines, and doctoral programs in Biological Sciences, Economics, History, and Mathematics. Course offerings span the humanities, social and behavioral sciences, mathematics and natural sciences.

COLLEGE OF BUSINESS

The basic objective of the College of Business is to serve the needs of undergraduate and graduate students preparing for professional and managerial positions in business administration and accounting and those preparing for professional business education careers at all levels. The College includes the Departments of Accounting, Business Administration and Business Education.

COLLEGE OF EDUCATION

The College of Education, which includes the Departments of Curriculum and Instruction, Educational Administration and Special Education, has three broad missions: (1) preparation of individuals to serve as instructional, supervisory and

administrative personnel in all types and levels of educational institutions; (2) systematic study of educational problems and developments in their broad context and the related preparation of scholar-practitioners in the field of education; and (3) participation in service activities designed to improve the quality of the educational enterprise. The College administers clinical experiences and an admission-retention program in undergraduate teacher education in addition to offering a wide range of graduate programs, including a doctoral program in Educational Administration.

COLLEGE OF FINE ARTS

The primary function of the College of Fine Arts and its Departments of Art, Music and Theatre is to provide professional training in the arts for students preparing to be elementary, secondary and college teachers and for students desiring professional careers in select areas of the arts. Various areas of concentration in undergraduate and graduate studies, including MFA programs and a doctoral program in Art, provide flexible curricula for a variety of student talents and interests. The College also provides a cultural environment through the performing and visual arts for the campus, community and region.

Departments and Course Offerings

SEMESTER PLAN

The University operates on the semester plan. The value of courses is, therefore, in terms of semester hours. A semester hour is assigned for a fifty-minute period of lecture or discussion for a semester of 18 weeks. For laboratory two 50-minute periods are necessary for a semester hour.

COURSE NUMBERING SYSTEM

This **Graduate Catalog** contains courses numbered 300 to 599.

300-399 Advanced undergraduate and graduate courses. Open to juniors, seniors and graduate students.

400-499 Graduate courses.

500-599 Courses limited to advanced graduate or doctoral students.

The following information is given for each course, in the following order: course number (3 digits preceding the title), course title and credit value (in semester hours). Following the above course description any prerequisites, restrictions on enrollment, and any special considerations are noted.

TEACHING STAFF

The members of the teaching staff of each department are listed in the departmental sections which follow. The entire faculty for the Graduate School is shown in a section after **Departments and Course Offerings**.

GENERAL COURSES

A list of general courses offered in all departments is found on page 140.

Accounting (See Business)

Agriculture

Acting Chairperson of the Department: George W. Forgey. Office: 124 Turner Hall.

Teaching Staff: B. Bristol, W. Chrudimsky, A. Culver, G. Forgey, F. Fuess, R. Henry, K. James, J. McBee, J. Sagebiel, H. Woods.

PROGRAMS OFFERED

The Department of Agriculture participates in an inter-institutional M.S. Program in Agriculture with the University of Illinois and with Southern Illinois University. The primary purpose of these cooperative programs is to provide an opportunity for professional workers in the field of Agriculture living in the Bloomington and Normal area to pursue advanced degrees at the University of Illinois or Southern Illinois University. For details of these programs contact the Department of Agriculture at Illinois State University.

Anthropology (See Sociology-Anthropology)

Art

Chairperson of the Department: Fred V. Mills. Office: Center for the Visual Arts - Room 119.

Director of Doctoral Studies: Max R. Rennels.

Director of Masters Studies: Jack Hobbs.

Teaching Staff: F. Anderson, G. Barford, H. Boyd, W. Colvin, N. Ernest, R. Freyberger, R. George, H. Gregor, W. D. Hartley, R. Hentz, J. Hobbs, K. Holder, R. Jackson, K. Knoblock, J. Kohn, T.

Malone, J. Marlow, R. Mawdsley, F. Mills, B. Moore, J. Myers, M. Newby, E. Niemi, M. Rennels, R. Salome, E. R. Stefl, C. L. Steinburg, A. Sweet, B. Tinsley, N. Towner.

The Department offers work leading to the following degrees: M.A., M.S., M.S. in Ed., M.F.A., and Ed.D. General University requirements for degrees are described elsewhere in this catalog.

ART EDUCATION

The Master's Degree Program in Art Education can lead to either the M.A. or M.S. degree. Each student's program is developed in consultation with an advisor from the Art Education Area. Programs should include a concentration of studies which reflects students' interests. Some examples are: (1) Arts and crafts for elementary and secondary schools, (2) Curriculum and supervision of elementary and secondary school art, (3) Elementary art, (4) Secondary art, (5) Community art programs and centers, (6) Research and innovation in art education, (7) College and University art, and (8) Aesthetics.

ART STUDIO

The master's degree program in Art Studio may lead to either the M.A., or M.S. degree. These degrees are offered with concentrations in painting, sculpture, printmaking, ceramics, weaving, jewelry, design, photography, drawing and glassblowing. The program will be developed in consultation with an advisor from the major studio area. Each program is designed with the individual student's strengths and interests in mind.

ART HISTORY

The master's degree program in Art History may lead to either the M.A. or the M.S. degree. The program will be developed in consultation with an advisor from the Art History area. Each program is designed with the individual student's strengths and interests in mind.

MASTER OF FINE ARTS

The Master of Fine Arts in Art is a 60 hour program that emphasizes both the theory and practice in the production, history and teaching of the visual arts. Candidates will be expected to demonstrate artistic proficiency in at least one of the following disciplines: painting, sculpture, printmaking, ceramics, weaving, jewelry, design, drawing or glassblowing. Candidates will also be expected to demonstrate an ability to communicate ideas in a written and oral manner.

Since a primary objective is to prepare teachers for higher education, students will also be expected to participate in an experience of internship or apprenticeship. This may take the form of a guided teaching experience or work in a professional area related to the student's area of interest. (Conceivably this might involve local industry, schools, etc.) The exact nature of this experience will be worked out through counseling between the major advisor and the student and will be tailored to best suit the needed experience for each student. This project will be subject to approval of the student's graduate committee.

It should be clearly understood that the accumulation of 60 semester credit hours is not the primary criterion in evaluating final achievement. Instead, it is the exhibition and demonstration of the student's competency and his intellectual maturity and that these expectations be deemed proficient in his area of the arts. In view of this, a major requirement will be a comprehensive showing of the student's visual work and a written and/or oral examination of the intellectual implications of his chosen field.

A typical program for the Master of Fine Arts degree will include at least 60 semester hours of graduate work beyond the bachelor's degree. These 60 hours may be programmed as follows:

a. At least 36 semester hours must be taken in the Art Department, of these at least 24 must be at the 400 level.

b. At least 24 semester hours must be in the student's major studio area, of these at least 18 must

be at the 400 level.

c. At least 12 semester hours must be taken in art history, or nine hours may be taken in art history with three hours in related areas such as aesthetics, philosophy, or anthropology.

d. At least three semester hours in an internship or apprenticeship program. The exact nature of this program will be determined by the student and his major advisor and designed to best suit the needs of the individual student.

e. At least three semester hours of an elective outside the Art Department.

f. Six hours of Thesis 499. The graduate show and/or comprehensive examination will fulfill this.

DOCTOR OF EDUCATION DEGREE IN ART

The degree requirements for the doctoral degree in the practice and teaching of Art have been structured for maximum flexibility. There are few specific course or hour requirements other than those necessary for establishing residency. The individual students with the approval of the Director of Doctoral Studies and later with his committee may design a plan of studies based upon both need and interest. The major studies are completed in the Art Department with a minor in any department which offers a graduate program. The student's specific course of study should facilitate transition through the program with professional competence and employability being the guide. The sequential procedure leading to the completion of the degree requirements is as follows:

a. Admission to advanced graduate standing in the Department of Art.

b. A tentative advanced graduate study program planned in consultation with the Director of Graduate Studies in Art.

c. A Degree Program Interview (for final approval of degree study program.)

d. Admission to doctoral candidacy.

1. Submission of a final plan of studies.

2. Preliminary Comprehensive Examinations following completion of approximately two-thirds of the planned course requirements.

3. Approval of the dissertation topic by the student's committee and the Graduate School.

e. Completion of terminal degree requirements within five years of the date on which candidacy was granted.

The department reserves the right to keep examples of original work produced by graduate students for its permanent collection of student art work.

COURSES

309 PROFESSIONAL ART EDUCATION CORE

3 sem. hrs.

Learning theory, studio skills and art teaching methodology. Closed if had Art 202 and/or Art 203. For Art Education major; others by consent of department chairperson. Two consecutive semester sequence.

321 PHILOSOPHY OF ART 3 sem. hrs.

324 JEWELRY III

**(formerly ADVANCED JEWELRY AND
SILVERSMITHING)**

2-6 sem. hrs.

Prerequisite: Art 225. May be repeated. Materials Charge.

326 VISUAL COMMUNICATIONS III

3 sem. hrs.

Advanced studio work in advertising and editorial layout. Prerequisites: Art 226 and 227.

328 CERAMICS III

(formerly ART 327)

2-6 sem. hrs.

Prerequisite: Art 229. May be repeated. Materials charge.

331 ADVANCED DRAWING

1-3 sem. hrs.

Prerequisite: Art 114. May be repeated.

332 SCULPTURE III

2-6 sem. hrs.

Prerequisite: Art 233. May be repeated. Materials charge.

340 WEAVING III

2-6 sem. hrs.

Prerequisite: Art 241. May be repeated. Materials charge.

345 PRINTMAKING II

(formerly ADVANCED GRAPHICS)

2-6 sem. hrs.

Prerequisite: Art 245. May be repeated. Materials charge.

351 SPECIAL PROJECTS IN ART

2-6 sem. hrs.

Prerequisite: Consent of instructor. May be repeated. Materials charge.

355 GLASS II

2-6 sem. hrs.

Advanced skills of creating hand blown glass. Prerequisite: Art 255. May be repeated. Materials charge.

361 PAINTING IV

2-6 sem. hrs.

Prerequisite: Art 263. May be repeated.

366 ANCIENT ART

3 sem. hrs.

Art and architecture of early civilizations of Egypt, Mesopotamia and peripheral areas from circa 8000 B.C. to circa 300 B.C.

367 CLASSICAL ART 3 sem. hrs.

Art and architecture of the Aegean Greek and Roman worlds from circa 3000 B.C. to the era of Constantine.

369 HISTORY OF MEDIEVAL ART AND ARCHITECTURE

3 sem. hrs.

Art and architecture of Europe from circa 500 A.D. to the Renaissance.

372 MODERN ARCHITECTURE

3 sem. hrs.

Late 19th and 20th century architecture. Sullivan, Wright and the Chicago School. European movements involving Le Corbusier, Gropius, and Mies Van der Rohe. The great engineers, Maillart, Nervi, Fuller, Candela.

373 PRE-COLUMBIAN ART

INDIAN ARTS OF MIDDLE AMERICA

3 sem. hrs.

Art of Mexico and Yucatan before the arrival of the Spanish.

375 ITALIAN RENAISSANCE ART

3 sem. hrs.

Painting, sculpture, and architecture of the 15th and 16th centuries in Italy.

376 NORTHERN RENAISSANCE ART

3 sem. hrs.

Art and architecture of the Renaissance and Mannerism in Northern Europe.

377 HISTORY OF BAROQUE AND ROCOCO ART

3 sem. hrs.

Painting, sculpture, and architecture of Europe during the 17th century.

378 HISTORY OF 19TH CENTURY ART AND ARCHITECTURE

3 sem. hrs.

Concentration is centered on the art of Europe from the French Revolution to the 20th century.

379 MODERN ART

3 sem. hrs.

Painting and sculpture in Europe and America from the late 19th century to 1970.

380 ART IN THE UNITED STATES I: COLONIAL-19TH CENTURY ROMANTICISM

3 sem. hrs.

American art from the Colonial Period through 19th Century Romanticism.

**381 ART IN THE UNITED STATES II:
AMERICAN IMPRESSIONISM-WORLD
WAR II 3 sem. hrs.**

American art from late 19th century Impressionism to the advent of World War II.

**382 ART IN THE UNITED STATES III:
WORLD WAR II TO THE PRESENT
3 sem. hrs.**

Complex artistic developments which occurred in the United States from World War II to the present.

**401 FOUNDATIONS OF ART EDUCATION
3 sem. hrs.**

A study of the historical and philosophical foundations of art education.

**402 ISSUES IN ART EDUCATION
2 sem. hrs.**

Problems in art education from the point of view of research and experimentation. Development of instructional methods and materials, and means of testing their validity.

**403 SCHOOL PROGRAMS IN ART
2 sem. hrs.**

Problems relating to the development and administration of total public school art programs in communities of different sizes.

**411 ISSUES IN TEACHING ELEMENTARY
ART
3 sem. hrs.**

Art program from kindergarten through the sixth grade: content, methods, and teaching materials. The role of art in the total curriculum.

**412 ISSUES IN TEACHING SECONDARY
ART
3 sem. hrs.**

The art program at the junior, senior high, and junior college levels: content, methods, and teaching materials. The role of art in the total curriculum.

**421 PROBLEMS IN TEACHING ART IN
HIGHER EDUCATION
2-5 sem. hrs.**

Opportunity for observation, participation, and

teaching at the college level. Assignments are made with the approval of the department chairperson at least two months prior to registration.

**422 COLLEGE PROGRAMS IN ART
2 sem. hrs.**

Planning and administration of college and university art programs.

**425 PSYCHOLOGY OF ART
3 sem. hrs.**

A survey of philosophical and psychological studies of the creative individual; art appreciation and production, and the art product; consideration of social and educational implications.

**444 PROBLEMS IN STUDIO WORK
2-6 sem. hrs.**

Individual study and direction in creative activity. May be repeated. Must have permission of the instructor. Materials charge.

**451 SPECIAL PROJECTS IN ART
2-6 sem. hrs.**

Special project in art or art education chosen by the student for investigation with the approval of the instructor and the chairperson of the department. A student may enroll in this course for credit more than once if the material covered is not duplicated. Materials charge.

471 PRIMITIVE ART 3 sem. hrs.

Art of preliterate cultures in several parts of the world and the culture traits, complexes, and institutions associated with them.

482 CONTEMPORARY PAINTING 3 sem. hrs.

Backgrounds for 20th century painting. Major movements in modern painting: Impressionism, Post-Impressionism, Dada, Surrealism, Social Consciousness, Regionalism, Abstract Expressionism, Paintings Today. Paints must be bought.

**491 INTERNSHIP IN COLLEGE TEACHING
IN ART 3 sem. hrs.**

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

499 MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

597 SEMINAR IN RESEARCH

1-6 sem. hrs.

Introduction to bibliography, methods of

Biological Sciences

Chairperson of the Department: Howard R. Hetzel. Office: Felmley Hall 206.

Teaching Staff: D. Birkenholz, H. Brockman, L. Brown, W. Brown, L. Cadwell, R. Chasson, T. Chuang, B. Cole, J. Cralley, E. Dilks, K. Fitch, J. Frehn, H. Hetzel, H. Huizinga, D. R. Jensen, A. Liberta, D. McCracken, L. Mentzer, O. Mizer, E. Mockford, M. Nadakavukaren, M. Neville, R. Preston, E. I. Rhymer, R. O. Rilett, F. Schwalm, J. Tone, J. Verner, J. Ward, D. Weber, R. Weigel, E. Willis.

Joint Appointment with Chemistry: A. Richardson, J. Tsang.

The Department offers work leading to the following degrees: M.S., M.S. in Ed., and Ph.D. Master's degree students are required to take the following courses: **300 or 301** — Readings in Biological Sciences, and two semester hours in Research Seminar 497. In addition to the above courses, master's degree students in the comprehensive program are also required to take two semester hours of **305** — Special Problems in Biology.

Ph.D. students are required to take the following courses: **300 or 301** — Readings in Biological Sciences and four semester hours in Research Seminar 497. University requirements for the M.S. and Ph.D. degrees are described elsewhere in this catalog.

A student working toward the Ph.D. degree in Biology may concentrate studies in the following areas: botany, genetics, microbiology, physiology, or zoology.

scholarly research and the critical evaluation of research in the field. May be repeated by more advanced students who desire direction and constructive criticism as they pursue research problems.

599 DOCTORAL DISSERTATION

Variable credit

Research involving the gathering of data to form basis for the doctoral dissertation. Approval of the chairperson of the department is required.

Ph.D. LANGUAGE REQUIREMENTS

General language requirements of the Graduate School apply. With the approval of the Departmental Graduate Curriculum Committee, the chairperson of the Department may permit the substitution of Psychology 440 and 441 **OR** Mathematics 350 and 351 for one of the two foreign language requirements. The student is required to earn a grade of A or B in both of the courses in the sequence he selects.

COURSES

300 and 301 READINGS IN THE BIOLOGICAL SCIENCES

Each 1 sem. hr.

Readings of classical and modern biological literature.

302 HISTORY OF BIOLOGY 3 sem. hrs.

A study of the great biologists emphasizing their contributions to the development of the biological sciences. Lecture.

303 NATURAL SCIENCE FOR ELEMENTARY TEACHERS

3 sem. hrs.

Present-day developments in science in relation to instruction in elementary schools. Content, activities, and approach involved in teaching an in-

tegrated science program at various grade levels. Lecture and laboratory. May not be used to satisfy the requirements for a major or minor in the Biological Sciences.

304 SEMINAR IN BIOLOGY 1 sem. hr.

305 SPECIAL PROBLEMS IN BIOLOGY 1-3 sem. hrs.

Special work in fields represented by the research interests of the staff. Projects must be approved by the staff member and the chairperson of the department before registration.

306 REGIONAL AND AREA STUDIES 1-9 sem. hrs.

An intensive study of particular lands, environments, cultures and peoples. May be given in cooperation with other departments, on or off the campus. The areas to be studied, participating departments, and credit hours available in the several departments will be announced each time the course is offered.

318 LABORATORY TECHNIQUES 2 sem. hrs.

Preparation of permanent microscope slides of plant and animal tissues and special techniques for whole mounts, plastic embedding, plastic injections, and nerve preparations. Lecture and laboratory.

319 GENETICS 4 sem. hrs.

Data and concepts of genetics from Mendel to today. Lecture and laboratory. Prerequisite: Twelve semester hours of laboratory courses in biological sciences, or consent of instructor.

320 PLANT PATHOLOGY 4 sem. hrs.

Systematics, morphology, life-cycles, and control measures for organisms causing plant diseases. Lecture and laboratory. Prerequisite: Biological Sciences 121.

331 TAXONOMY OF VASCULAR PLANTS 4 sem. hrs.

Plant classification with emphasis on native and naturalized species. Lecture and laboratory. Prerequisite: Biological Sciences 121.

332 TAXONOMY OF NON-VASCULAR PLANTS 4 sem. hrs.

Plant classification with emphasis on the evolution of the algae, fungi and bryophytes. Lecture and laboratory. Prerequisite: Biological Sciences 122.

333 COMPARATIVE PLANT MORPHOLOGY 4 sem. hrs.

Comparative morphology of vascular plants emphasizing morphogenesis. Lecture and laboratory. Prerequisite: Biological Sciences 123.

334 INTRODUCTORY MYCOLOGY 3 sem. hrs.

Morphology, taxonomy, and evolution of the fungi. Lecture and laboratory. Prerequisite: Biological Sciences 121.

340 ADMINISTRATION OF SCHOOL HEALTH 3 sem. hrs.

Administration and organization of school health programs and health education programs. Lecture.

360 SANITATION 4 sem. hrs.

Microbiology as applied to community water supplies, waste disposal, swimming pools, foods and their distribution, and stream and air pollution. Lecture and laboratory. Prerequisite: Biological Sciences 260.

365 PHYCOLOGY 4 sem. hrs.

Taxonomy, morphology, anatomy, and physiology of the algae with special emphasis on species common to Illinois. Lecture and laboratory. Prerequisite: Biological Sciences 121.

381 APPLIED HUMAN ANATOMY 4 sem. hrs.

Study of the human body with emphasis on the musculo-skeletal and nervous systems. Designed for students who will teach physically handicapped children. Lecture and laboratory. Prerequisites: Biological Sciences 182 or Health and Physical Education, Recreation 182 or consent of instructor.

382 THE EYE—A LABORATORY AND CLINICAL STUDY 3 sem. hrs.

Anatomy and physiology of the eye. Lecture and laboratory supplemented by clinical demonstrations on the detection and care of eye disorders. Prerequisite: Biological Sciences 182.

383 PARASITOLOGY 4 sem. hrs.

Morphology, life histories, and host-parasite relationships of arthropod, helminth, and protozoan parasites. Lecture and laboratory. Prerequisite: Biological Sciences 190.

385 PHYSICAL DEFECTS—SURVEY AND REHABILITATION 3 sem. hrs.

Physical defects of handicapped children and procedures used in rehabilitation. For those preparing to teach special classes of physically handicapped children. Lecture and laboratory. Also offered as Health and Physical Education, Recreation 385. Prerequisite: Biological Sciences 381.

386 GROSS ANATOMY 4 sem. hrs.

Dissection of the human body exclusive of the head and neck. Prerequisite: Biological Sciences 182 or 192 or Health and Physical Education Recreation 182.

387 GROSS ANATOMY 2 sem. hrs.

Dissection of the head and neck with emphasis on the central nervous system and sense organs. Prerequisite: Biological Sciences 182 or 192 or Health and Physical Education, Recreation 182.

390 EVOLUTION 3 sem. hrs.

Environmental, behavioral and genetic mechanisms involved in the processes of evolution. Lecture and discussion. Prerequisite: Biological Sciences 319 or consent of instructor.

391 ENTOMOLOGY 4 sem. hrs.

Anatomy, physiology, and embryology of insects. Lecture and laboratory. Prerequisite: Biological Sciences 190.

392 EMBRYOLOGY 4 sem. hrs.

Comparative embryology of the vertebrates with

emphasis on avian and mammalian embryos. Lecture and laboratory. Prerequisite: Biological Sciences 190.

394 PROTOZOOLOGY 4 sem. hrs.

Survey of the Phylum Protozoa, emphasizing morphology, physiology, reproduction, and taxonomy. Lecture and laboratory. Prerequisite: Biological Sciences 190.

395 BIOLOGY OF THE LOWER VERTEBRATES 4 sem. hrs.

The biology of fish, amphibians, and reptiles. Lecture and laboratory. Prerequisite: Biological Sciences 190.

396 BIOLOGY OF THE HIGHER VERTEBRATES 4 sem. hrs.

The biology of birds and mammals. Lecture and laboratory. Prerequisite: Biological Sciences 190.

401 ADVANCED ECOLOGY 4 sem. hrs.

Physiological, population, and evolutionary ecology. May be repeated for credit with permission of Department Chairperson and Instructor. Lecture and laboratory. Prerequisites: Biological Sciences 201; courses in Physiology and Genetics.

402 AQUATIC BIOLOGY 4 sem. hrs.

Ecological study of streams, ponds, and lakes. Field trips to varied habitats and aquatic field stations. Lecture and laboratory. Prerequisite: Biological Sciences 201.

404 SEMINAR IN THE TEACHING OF BIOLOGY 1 sem. hrs.

Techniques and aids for biology teaching in secondary schools and junior colleges.

416 CELLULAR PHYSIOLOGY 5 sem. hrs.

A study of fine structure and physiochemical properties of the cell. Lecture and laboratory. Prerequisite: Consent of instructor.

417 CYTOLOGY 4 sem. hrs.

Organization of cells with emphasis on the

relationships between structure and function. Lecture and laboratory. Prerequisite: Biological Sciences 319.

418 ELECTRON MICROSCOPY 4 sem. hrs.

Preparation, staining, embedding and sectioning procedures, negative staining and vacuum evaporation techniques, preparation of specimen support membranes, photographic methods, use of the electron microscope and introduction to electron optics. Lecture and laboratory. Prerequisite: Consent of instructor.

419 ADVANCED GENETICS 4 sem. hrs.

Recent developments in genetics including topics of genetic recombination, gene structure and function, mutation and gene regulation. Lecture. Prerequisite: Biological Sciences 319 or consent of instructor.

420 SEMINAR IN GENETICS 1 sem. hr.

Topics in various fields of genetics. Subjects will vary from semester to semester. This course may be repeated for credit with consent of the department chairperson. Prerequisite: Biological Sciences 319 or consent of instructor.

421 CYTOGENETICS 4 sem. hrs.

Correlation of cytology with genetics. Lecture and laboratory. Prerequisites: Biological Sciences 319 and 417.

425 RADIATION BIOLOGY 4 sem. hrs.

Interactions of radiation at the molecular, cellular, organismic, and population levels. Lecture and laboratory. Prerequisite: Consent of instructor.

426 SPECIAL TOPICS IN PLANT PHYSIOLOGY 2 sem. hrs.

Lectures in selected areas of plant physiology: water and mineral relations, carbon and nitrogen metabolism, plant growth and development. Course may be repeated for credit. Prerequisite: Chemistry 230, 232 or equivalent.

428 ENZYMOLOGY 3 sem. hrs.

Mechanism of action, isolation and characterization, biosynthesis, and kinetics of enzymes. Lecture and laboratory. Prerequisite: Chemistry 344, Mathematics 135, consent of instructor.

433 PLANT ANATOMY AND HISTOLOGY 3 sem. hrs.

Origin, development, and structure of tissues in vascular plants. Lecture and laboratory. Prerequisite: Consent of instructor.

440 EPIDEMIOLOGY 3 sem. hrs.

Principles related to the incidence and control of epidemic diseases. Etiology, pathogenesis, host response, identification, and diagnostic procedures. Lecture. Prerequisite: Biological Sciences 260.

450 ADVANCED STUDIES IN SPECIALIZED FIELDS 1-4 sem. hrs.

Recent developments in such fields as biochemistry, biophysics, biomathematics, biological oceanography, ecology, ethology, reproductive and developmental biology, invertebrate zoology, parasitology, systematics, phycology, plant ecology. Prerequisite: Consent of instructor. May be repeated.

464 ADVANCED MYCOLOGY 3 sem. hrs.

Isolation, culturing, physiology, and ultrastructure of fungi. Lecture and laboratory. Prerequisite: Biological Sciences 334 or consent of instructor.

466 MICROBIAL PHYSIOLOGY 4 sem. hrs.

Fundamental concepts and techniques of bacteriology. Anatomical, nutritional, and metabolic properties. Microbiological assays. Prerequisites: Biological Sciences 260 and Chemistry 215 and 232.

467 MICROBIAL GENETICS 5 sem. hrs.

Heredity in microorganisms and the viruses as a branch of microbiology. Lecture and laboratory. Prerequisites: Biological Sciences 260 and 319, Chemistry 215, 232 or consent of instructor.

480 HISTOLOGY 4 sem. hrs.

Microscopic anatomy of cells, tissues and organs of vertebrates. Lecture and laboratory.

481 SENSORY PHYSIOLOGY 3 sem. hrs.

Structural and functional aspects of the sensory systems. Topics considered include photoreception, chemoreception, action potentials, hearing, sensory pathways and associated brain centers. Lecture and laboratory. Prerequisite: Biological Sciences 482 or consent of instructor.

482 MAMMALIAN PHYSIOLOGY 4 sem. hrs.

The physiology of muscular, nervous and circulatory organ systems. Lecture and laboratory. Prerequisite: Course in vertebrate anatomy and organic chemistry or consent of instructor.

483 MAMMALIAN PHYSIOLOGY 4 sem. hrs.

The physiology of the respiratory, excretory, digestive and reproductive systems. Lecture and laboratory. Prerequisite: Biological Sciences 192, Chemistry 232 or consent of instructor.

**484 HUMAN DEVELOPMENT AND BEHAVIOR
3 sem. hrs.**

Basic genetics, developmental biology, physiology and endocrinology for students in education, psychology, health and physical education and special education. Prerequisite: Consent of instructor.

485 ENDOCRINOLOGY 4 sem. hrs.

Hormonal systems in vertebrates and invertebrates. Lecture and laboratory. Prerequisites: Chemistry 344 and Biological Sciences 482, 483 or consent of instructor.

486 ETHOLOGY 4 sem. hrs.

The behavior of animals under natural conditions as interpreted through comparative studies and experimentation. Lecture and laboratory. Prerequisite: Equivalent of Biological Sciences 199 or consent of instructor.

487 HUMAN GENETICS 4 sem. hrs.

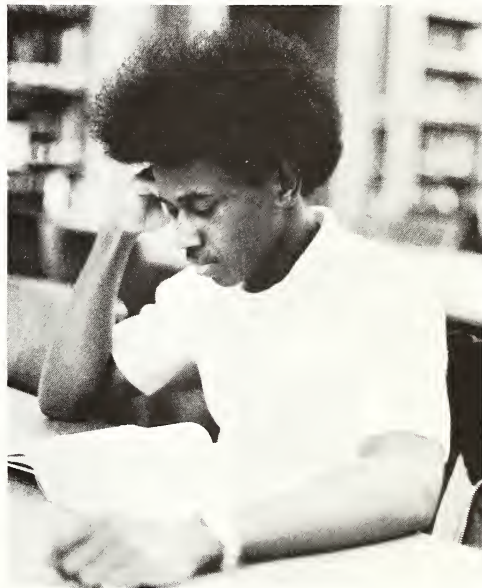
Gene action, population genetics, biochemical genetics, mutation genetics, and practical applications of genetics with primary emphasis on man. Prerequisite: Biological Sciences 319.

**491 INTERNSHIP IN COLLEGE TEACHING
IN BIOLOGICAL SCIENCES
3 sem. hrs.**

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491). Prerequisite: Consent of Department Chairperson.

**492 DEVELOPMENTAL BIOLOGY
4 sem. hrs.**

Concepts of differentiation, induction and of regulatory mechanisms involved in regeneration, aging, carcinogenesis and immune response, are discussed. Labs demonstrate approaches to morphological, experimental and biochemical analysis of developmental processes. Lecture and laboratory. Prerequisites: Biological Sciences 319 and 392.



493 BIOPHYSICS 3 sem. hrs.

The application of principles of physics to biological problems. Attention will be given to: electromagnetic radiation, optics and microscopy, radioactivity, and bioelectric potentials. Lecture and laboratory. Prerequisite: Mathematics 135, Physics 109, Chemistry 232, or consent of instructor.

495 COMPARATIVE ANIMAL PHYSIOLOGY 4 sem. hrs.

A comparative study of the physiology of the organ systems with emphasis on invertebrates. Topics considered include osmotic balance, nutrition, nitrogen excretion, respiration, metabolism, endocrine mechanisms, excitation and contractility and bioluminescence. Lecture and laboratory. Prerequisite: Biological Sciences 191, Chemistry 232 or consent of instructor.

497 RESEARCH SEMINAR 1-6 sem. hrs.

Introduction to bibliography, methods of

scholarly research and critical evaluation of research. May be repeated.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

599 RESEARCH IN THE BIOLOGICAL SCIENCES Variable credit

Research involving the gathering of data to form the basis for the dissertation required for the Ph.D.

Botany

(See Biological Sciences)

Business

The University offers programs leading to the M.A., M.S., or M.S. in Ed. degrees. The Master's program in Business is administered in the Department of Accounting and in the Department of Business Administration, while the Master's programs combining Business and Business Education are administered in the Department of Business Education. Candidates for the master's degrees should consult with the chairperson of the department in which the particular program is administered to determine the specific requirements for the degree.

Admission to a degree program in Business requires an acceptable score on the Admission Test for Graduate Study in Business and an acceptable undergraduate grade point average. Additional factors such as rank in graduating class, trends in student's grade record and experience may be considered. (Also, see pp 9 & 10.)

The M.S. in Business degree is designed for each student on a highly individual basis which is dependent on the student's background and career aspirations. It is, therefore, extremely important that a Plan of Study be formulated and approved by an advisor prior to initiation of graduate study. M.S. in Business students should consult with the department chairperson of the area in which they intend to concentrate (Accounting or Business Administration) in order to develop a Plan of Study. Courses completed without the specific approval of their advisor cannot be assumed to count toward degree completion. Under normal circumstances the following courses will not count toward an M.S. in Business with a concentration in Accounting: Accounting 333, 335, 450 and 464. Similarly, Business Administration M.S. candidates will not normally be permitted to include Accounting 450, Business Administration 320, 330, 339, or 340 in their Plan of Study.

Department of Accounting

Chairperson of the Department: James A. Hallam. Office: Stevenson Hall 435.

Teaching Staff: G. Chapman, J. Hallam, T. Secoy, R. Tussing.

COURSES

Normally, the following courses will not count toward an M.S. in Business with a concentration in Accounting: Accounting 333, 335, 450 and 464.

330 FUND ACCOUNTING 3 sem. hrs.

Examination of principles and procedures followed in fund accounting. Practical application of fund accounting to financial planning and control of non-profit institutions. Independent study in special areas, such as schools and hospitals, may be arranged for partial credit. Prerequisite: Five semester hours of accounting.

332 ADVANCED MANAGERIAL ACCOUNTING 3 sem. hrs.

An examination of recent conceptual and analytical developments in the area of management accounting. Statistics and computers will be used as tools for controlling business operations and providing relevant data for decision making. Where applicable such mathematical tools as linear programming, network analysis and others will be used to solve problems. Prerequisites: Accounting 230 and 260, Business Administration 100 or equivalent, Mathematics 121 or equivalent.

333 INCOME TAX PROCEDURE 3 sem. hrs.

Federal income tax provisions affecting individuals and business enterprises, and problems involved in tax computations. Prerequisite: Accounting 131 or consent of department chairperson.

334 ADVANCED TAX PROBLEMS 3 sem. hrs.

Intensive examination of federal taxation

procedures affecting corporations, partnerships, estates and trusts. Examination of gift and social security taxes. Prerequisite: Accounting 333 or consent of department chairperson.

335 AUDITING 3 sem. hrs.

Nature of audit evidence, basic audit techniques, audit practices and procedures, professional ethics, audit reports. Prerequisite: 12 semester hours of accounting.

337 ADVANCED ACCOUNTING PROBLEMS 3 sem. hrs.

Theory, problems and issues concerning mergers and acquisitions; business combinations; consolidated financial reports; accounting for international operations; estates and trusts; and partnerships. The latest authoritative pronouncements and professional literature in these areas are essential components of this course. Prerequisite: Accounting 232.

361 BUSINESS SYSTEMS ANALYSIS FOR COMPUTER PROGRAMMING 3 sem. hrs.

Planning, developing, and implementing systems. Analysis of managerial information needs and the importance of accuracy and timeliness. Each student completes a sub-system or systems module which includes analysis, design, flowcharting, programming and documentation. Prerequisite: Accounting 132 and either Accounting 160 or 260.

366 ADVANCED BUSINESS DATA PROCESSING 3 sem. hrs.

Development of problem formulation, flowcharting, coding, testing, executing and documenting, using a compiler-level computer language. Discussions of disk systems, tape systems, and operating systems as applied to business problems. Prerequisite: Accounting 260 or consent of department chairperson.

367 COMPUTER APPLICATIONS FOR BUSINESS DECISION MAKING 3 sem. hrs.

Application of the principles of dynamic mathematical techniques, and the utilization of ac-

counting data in the solution of business problems. Principal techniques applied will be linear and integer programming, queuing-line problems, construction of models, and the structure of business games. Prerequisite: Nine semester hours of Accounting, including 160 or 260; 12 semester hours of Business Administration, including 100 and or Mathematics 250 or consent of department chairperson.

375 PROFESSIONAL PROBLEMS

3 sem. hrs.

An in-depth study of contemporary problems in the area of financial accounting. The main emphasis will center upon the techniques utilized in solving the wide variety of financial accounting problems facing the accounting practitioner of today. Prerequisite: 24 sem. hrs. of accounting, including Accounting 337 or consent of department chairperson.

430 ADVANCED ACCOUNTING THEORY

4 sem. hrs.

Fundamental concepts of accounting theory: their nature, structure, history, and development. Relationship and application to current accounting problems. Prerequisite: 15 semester hours of accounting or consent of department chairperson.

431 CURRENT ISSUES IN ACCOUNTING

4 sem. hrs.

Consideration of current issues and controversies in theory and practice; special attention given to authoritative pronouncements and professional literature. Prerequisite: Accounting 430 or 18 hours of accounting or consent of department chairperson.

435 ADVANCED AUDITING 4 sem. hrs.

A critical analysis of auditing standards and procedures, the relationship of trends and developments of the accounting profession to the practice of auditing, including the examination of current professional literature. Prerequisite: Accounting 335, or consent of department chairperson.

439 ADMINISTRATIVE ACCOUNTING

4 sem. hrs.

Accounting as a tool for management planning

and control and decision making. Organization of the accounting department; financial and management audits and performance evaluation; cost determination and analysis for administrative purposes. Prerequisites: 15 hours of accounting or its equivalent, and consent of department chairperson.

450 MANAGEMENT ACCOUNTING

4 sem. hrs.

Designed for non-accounting majors. Emphasis on the interpretation and use of accounting data. Not open to students who have six semester hours of accounting or equivalent.

464 COMPUTER METHODOLOGY

2 sem. hrs.

Designed for non-accounting majors. File processing and statistical programming. Use of statistical programs previously written and stored on the computer. Not open to students who have six semester hours of computer courses or equivalent.

468 COMPUTER-BASED MANAGEMENT INFORMATION SYSTEMS

3 sem. hrs.

Designing of management information systems modules and their integration into an overall computer-based management information system for business. Prerequisites: Accounting 260 and 361 or consent of department chairperson.

470 ADVANCED STUDIES IN SPECIALIZED FIELDS 2-4 sem. hrs.

Recent developments in accounting, data processing and information systems. May be taken for credit more than once, provided different material is covered. Prerequisite: 15 semester hours of accounting or consent of department chairperson.

497 ACCOUNTING RESEARCH AND REPORTS

4 sem. hrs.

Research methodology, bibliography, reporting techniques, sources of reference materials. Individual practice in conducting and reporting on specific research projects. Prerequisite: 15 semester hours of accounting or consent of department chairperson.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration

Department of

Business Administration

Acting Chairperson of the Department: R. H. Johnson. Office: Stevenson Hall 439.

Teaching Staff: A. Abdel-Halim, P. Couch, K. Crepas, J. Grimm, E. Hackleman, R. Johnson, R. Kerber, J. Meador, C. Mohr, R. Potter, D. Robinson, T. Shin, B. Stern, P. Winn.

COURSES

Normally, Business Administration M.S. candidates will not be permitted to include Accounting 450, Business Administration 320, 330, 339, or 340 in their Plan of Study.

301 DECISION THEORY 3 sem. hrs.

Behavioral and quantitative factors in business decision-making. Emphasis on quantitative methods of making decisions under conditions of uncertainty. Prerequisite: Business Administration 100.

310 BUSINESS IN A LEGAL ENVIRONMENT 3 sem. hrs.

Economic, business, and social values or forces which cause law related to business activities to change and adapt. Prerequisite: Business Administration 110 or consent of instructor.

311 GOVERNMENT REGULATION OF BUSINESS 3 sem. hrs.

Rules and regulation of mergers, monopolies, pricing, advertising, securities, food and drugs, unfair trade practices, utilities and transportation. Prerequisite: Economics 101 is recommended.

320 BUSINESS MANAGEMENT — PRODUCTION 1 sem. hr.

Overview of production, including plant layout,

beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

product development, production planning and control, methods and standards, quality control, and materials management. Prerequisites: Business Administration 100, graduate student, and consent of department chairperson; a six-week course.

323 HUMAN RESOURCES MANAGEMENT 3 sem. hrs.

Principles and procedures relating to man-power management, including staffing, appraisal, training, compensation, and other programs for business and other organizations. Prerequisite: Business Administration 220.

324 INDUSTRIAL RELATIONS MANAGEMENT 3 sem. hrs.

Managing employment relations and work conditions. Emphasis on negotiating, administering labor agreements and impact of collective bargaining on managerial practice. Prerequisite: Business Administration 323.

327 OPERATIONS MANAGEMENT 3 sem. hrs.

Advanced consideration of decision-making tools applied to manufacturing and other operational areas. Case analysis place emphasis on production management problems. Prerequisite: Business Administration 227.

329 PURCHASING POLICIES AND PROCEDURES 3 sem. hrs.

Purchase of materials, supplies, and equipment for industry, government, and other institutions. Organization for purchasing, internal requisitioning, and stock control.

330 BUSINESS MANAGEMENT — MARKETING 1 sem. hr.

Overview of major marketing areas using a systems framework. Internal and external environment, marketing plans including pricing and promotion. Prerequisite: consent of department chairperson. Closed if had Business Administration 230; a six week course.

331 CONSUMER BEHAVIOR 3 sem. hrs.

Determinants of consumer behavior. Influence of socio-psychological variables on the formation and change of attitudes, consumption and purchasing behavior. Non-credit for Business Administration graduate students. Prerequisite: Business Administration 230.

332 MARKETING RESEARCH 3 sem. hrs.

Research design, specific marketing research procedures, and the research report. Prerequisites: Business Administration 100 and 230.

336 INTERNATIONAL MARKETING 3 sem. hrs.

Managerial problems of world enterprise, with emphasis on the role of ethnic and cultural differences in influencing marketing strategy. Prerequisite: Business Administration 230.

339 MARKETING MANAGEMENT 3 sem. hrs.

Development and evaluation of the marketing plan. Includes analysis of actual and hypothetical cases. A term project will be included. Prerequisites: Business Administration 230; Business Administration 100 is recommended; not for graduate credit for Business Administration M.S. students.

340 BUSINESS MANAGEMENT — FINANCE 1 sem. hr.

Overview of major finance areas, including sources and utilization of funds, capital budgeting, cost of capital, investment evaluation and money markets. Prerequisite: consent of department chairperson. Closed if had Business Administration 240; a six week course.

341 CAPITAL INVESTMENT DECISIONS 3 sem. hrs.

Theory of capital management, evaluation of risks, determination of capital structures, measure of costs and returns, and allocation of capital. Prerequisites: Business Administration 100 and 240.

342 INVESTMENTS 3 sem. hrs.

Appraisal of securities and management of investment funds. Coverage includes governmental securities, industrials, utilities and financial institutions. Prerequisite: Business Administration 240.

343 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT 3 sem. hrs.

Advanced evaluation of types of securities; determinants of their value; methods of combining securities in the construction of investment portfolios. Prerequisites: Business Administration 240 and 342.

344 INTERNATIONAL FINANCE 3 sem. hrs.

International payments, structure and functions, international credit markets, investments, and institutions. Prerequisite: Business Administration 240.

351 LIFE AND HEALTH INSURANCE 3 sem. hrs.

Personal and business risks. Principles of life and health insurance and their applications. Prerequisite: Business Administration 110 or consent of instructor.

352 PROPERTY AND LIABILITY INSURANCE 3 sem. hrs.

Application to individuals, business enterprises and governmental institutions. General consideration of risk in fire, marine, bond and casualty areas. Prerequisite: Business Administration 110 or consent of instructor.

354 RISK MANAGEMENT 3 sem. hrs.

Management's role in treating nonspeculative

risks to which business is exposed. Emphasis on recognition, evaluation, and treatment of risks. Prerequisite: Business Administration 352.

401 RESEARCH METHODOLOGY

3 sem. hrs.

The procedure, techniques and application of research methods in business. Problem analysis, measurement techniques, experimental design considerations and report presentation. Analytical methods, including classical hypothesis testing, non-parametric tests, analysis of variance, linear and multiple regression and multivariate statistics. Prerequisite: Business Administration 100 or equivalent.

412 LEGAL ASPECTS OF BUSINESS DECISIONS

2 sem. hrs.

Brief consideration of legal reasoning as the developmental process of law, as it relates to business enterprises. Prerequisite: Business Administration 110 or consent of department chairperson.

419 SEMINAR IN QUANTITATIVE METHODS FOR BUSINESS

1-4 sem. hrs.

Topics will vary with needs and interests of students and faculty. May be taken more than once if different material is covered. Offered irregularly.

421 ANALYSIS OF ORGANIZATIONAL BEHAVIOR

3 sem. hrs.

A study of how people in organizations respond to managerial and organizational practices, using a systems orientation to analyze how environmental factors influence organizational practices and climate. Topics include reactions of people to structure and control, problems of motivation and performance, resolution of interdepartmental conflicts, adaptation to change. Prerequisite: Business Administration 220.

425 READINGS IN MANAGEMENT

2 sem. hrs.

Selected readings from the literature of general management, including recognized classics in the

field and other significant contributions of both theoretical and technical nature. Prerequisite: 15 semester hours in Business Administration and/or Accounting.

426 SEMINAR IN MANAGEMENT

3 sem. hrs.

Significant issues related to the management of people as well as management "functions" or "processes". Topics include: behavioral science and management, employee motivation, leadership, organizational communication, inter-organizational conflict, organization development, change, planning, objectives, control, values, ethics and social responsibility.

430 ADVANCED MARKETING MANAGEMENT

3 sem. hrs.

Marketing principles, behavioral concepts and quantitative techniques utilized in analyzing marketing problems and decisions. Emphasis on the quantitative aspects of decision-making process and marketing. Prerequisites: Business Administration 100 and 230.

431 ADVANCED CONSUMER BEHAVIOR

3 sem. hrs.

An analysis of psychological, sociological, social psychological, and cultural forces that influence household and industrial purchasing behavior. Emphasis placed on examination of research related to these influencing forces and on the analysis of comprehensive models of consumer behavior. Prerequisite: Business Administration 230.

439 SEMINAR IN MARKETING

1-4 sem. hrs.

Topics will vary with needs and interests of students and faculty. May be taken more than once if different material is covered. Offered irregularly.

440 FINANCIAL MANAGEMENT

3 sem. hrs.

Analysis of financial problems of business enterprises and the formulation of financial policies. Financing of current operations and long term

capital needs, income management and expansion policies. Prerequisites: Business Administration 240 and 100.

441 ADVANCED FINANCIAL INSTITUTIONS AND MARKETS

3 sem. hrs.

A critical study of sources of funds and investment management of these funds; scope and changes in financial markets; recent policy changes and problems in financial management of financial institutions; changes being proposed in regulations affecting structure and functions of the intermediaries and the nature of financial markets. Prerequisite: Business Administration 241.

449 SEMINAR IN FINANCE

1-4 sem. hrs.

Topics will vary with needs and interests of students and faculty. May be taken more than once if different material is covered. Offered irregularly.

471 BEHAVIORAL FOUNDATIONS OF BUSINESS

2 sem. hrs.

Selected topics in behavioral science and their application to business and management. Individual, group and organizational considerations in managerial problem-solving and decision-making. For graduate students who lack appropriate preparation in the behavioral sciences. Prerequisite: Consent of department chairperson.

481 ORGANIZATION STRUCTURE AND SYSTEMS 3 sem. hrs.

A study of systems analysis and its applications in business management. The design of organization structure in relation to systems concepts. Prerequisite: Business Administration 220 is recommended.

485 BUSINESS PROBLEMS AND POLICY

3 sem. hrs.

An integration of the major decision-areas in business through the use of complex business cases. Prerequisites: Business Administration 301, 430, 440 and 481.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 hours required for the master's degree.

Department of Business Education

Acting Chairperson of the Department:

Wilma Jean Alexander. Office: Stevenson Hall 437.

Teaching Staff: W. Alexander, J. Hall, A. Kaisershot, T. Martin, W. Perry, J. Rich, R. Wray.

COURSES

320 PRACTICUM IN OFFICE PRACTICE INSTRUCTION 2-3 sem. hrs.

For business education teachers teaching office machines or teaching in office education programs. Prerequisite: Business Education 211.

321 PRACTICUM IN DATA PROCESSING INSTRUCTION 2-3 sem. hrs.

Methods and procedures for teaching data processing courses. Prerequisite: Business Education 211.

330 DECISION-MAKING FOR CONSUMERS 3 sem. hrs.

Survey of consumer problems, trends, and information. Topics include: insurance, housing, credit, life-styles, consumer protection, leisure and achieving financial security. Also offered as Home Economics 330.

361 PRINCIPLES OF BUSINESS EDUCATION 3 sem. hrs.

Historical background and current status of business education emphasizing professional

responsibilities of teachers and principles of curriculum construction.

380 ORGANIZATION AND ADMINISTRATION OF VOCATIONAL OFFICE AND DISTRIBUTIVE EDUCATION PROGRAMS

3 sem. hrs.

Planning and organizing a cooperative program; emphasis on recruitment, selection of training stations, student placement, and operation of cooperative plan.

381 DIRECTED OCCUPATIONAL EXPERIENCES FOR OFFICE AND DISTRIBUTIVE EDUCATION
1-4 sem. hrs.

Designed to provide approved on-the-job experiences for credit toward the occupational experience required of office and distributive education coordinators and in-school instructors. Amount of credit to be earned will be determined by previous work experience.

382 COORDINATION TECHNIQUES OF COOPERATIVE OFFICE AND DISTRIBUTIVE EDUCATION PROGRAMS

3 sem. hrs.

Coordination techniques needed for high school and post-secondary teacher coordinators in integrating classroom activities with daily employment.

383 INDIVIDUALIZED INSTRUCTION TECHNIQUES IN VOCATIONAL OFFICE AND DISTRIBUTIVE EDUCATION **3 sem. hrs.**

Individualized instructional methods for teaching high school cooperative classes in office and distributive education.

390 IMPROVEMENT OF INSTRUCTION IN BOOKKEEPING AND ACCOUNTING
3 sem. hrs.

Methods of instruction, materials, organization,

and presentation of subject matter utilized in teaching of bookkeeping and accounting.

392 IMPROVEMENT OF INSTRUCTION IN BASIC BUSINESS AND CONSUMER EDUCATION
3 sem. hrs.

Methods of instruction, materials, organization, and presentation of subject matter utilized in teaching basic business and consumer education.

394 IMPROVEMENT OF INSTRUCTION IN TYPEWRITING AND OFFICE PRACTICE
3 sem. hrs.

Instructional methods in teaching personal typewriting, vocational typewriting, and clerical office practice.

396 IMPROVEMENT OF INSTRUCTION IN SHORTHAND AND SECRETARIAL PRACTICE
3 sem. hrs.

Instructional methods in teaching shorthand, transcription, and secretarial office practice.

402 ADMINISTRATION AND SUPERVISION OF BUSINESS EDUCATION
3 sem. hrs.

Concepts and techniques associated with administration of business education programs in high schools and junior colleges.

406 MEASUREMENT AND EVALUATION IN BUSINESS EDUCATION
3 sem. hrs.

Principles underlying measurement and evaluation in business subjects; development and administration of testing programs for business departments.

408 PROBLEMS OF OFFICE MANAGEMENT
3 sem. hrs.

Problems, practices, and policies in office administration. Methods of establishing, analyzing, standardizing, and controlling administrative systems and procedures in the office.

410 CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION

3 sem. hrs.

Principles and practices in curriculum construction and revision as they apply to vocational and non-vocational business education programs.

420 SEMINAR IN BUSINESS EDUCATION

2-3 sem. hrs.

Consideration of business education problems of greatest concern to the group and to the individual students by means of class discussions, presentation of position papers, group discussions, and individual conferences.

452 DISTRIBUTIVE EDUCATION IN THE POST-SECONDARY SCHOOL

3 sem. hrs.

Organization, curriculum construction, and administration of mid-management distributive education programs in post-secondary schools.

454 PROBLEMS IN DISTRIBUTIVE EDUCATION

3 sem hrs.

Current problems and research involved in teaching distributive education in programs at the secondary and post-secondary levels.

491 INTERNSHIP IN COLLEGE TEACHING IN BUSINESS EDUCATION

3 sem. hrs.

(See Curriculum and Instruction 491).

497 INTRODUCTION TO RESEARCH IN BUSINESS EDUCATION

3 sem. hrs.

Tools and types of research applicable to business education. Critical evaluation of current research emphasizing application in the improvement of instruction.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

Four to six hours required in the thesis option. Registration beyond six hours permitted but not counted toward the degree.

Chemistry

Chairperson of the Department: Michael E. Kurz. Office: Felmley Hall of Science 305.

Teaching Staff: R. Bunting, G. Clark, R. Duty, J. Hansen, J. House, R. Hunt, T. Ichniowski, M. Kurz, R. Reiter, A. Richardson, B. Ryder, S. Shulman, J. Tsang, E. Waage.

MASTER'S DEGREE IN CHEMISTRY

The department offers two programs leading to the M.S. degree. One requires a thesis based on original research in chemistry in addition to a core program of courses prescribed by the department.

The other program is designed to prepare teachers of chemistry at the secondary and community college levels. The program is flexible and takes into account the candidate's background and aspirations. This program consists of a core of courses and an extensive teaching competency core planned by the candidate and an advisory committee on an individual basis. The teaching competency core may include a thesis project, supervised

teaching experience, professional seminars or certain approved courses.

COURSES

The following courses are not applicable to an advanced degree in chemistry: 301, 302, 311, 360, 361, 362, 363.

308 CHEMICAL LITERATURE

1 sem. hr.

Introduction to chemical literature in journals, handbooks, abstracts, monographs, and patents. Problems requiring literature searches in all fields of chemistry. Prerequisite: 20 semester hours of Chemistry.

315 ANALYTICAL CHEMISTRY

3 sem. hrs.

A survey of modern instrumental methods of chemical analysis including electroanalytical, op-

tical, chromatographic and nuclear methods. Lecture and laboratory. Prerequisite: Chemistry 362 or concurrent registration, or consent of instructor. Locker charge of \$2.

323 QUALITATIVE ORGANIC ANALYSIS

3 sem. hrs.

Identification of organic compounds with emphasis on modern spectrometric methods. Prerequisite: Chemistry 233. Lecture and laboratory. Locker charge of \$2.

325 MODERN METHODS AND TECHNIQUES IN ORGANIC CHEMISTRY

2 or 3 sem. hrs.

Modern laboratory techniques associated with synthesis, quantitative analyses, distillations and chromatography. Organic literature searches will be stressed. Prerequisite: Chemistry 233 or consent of department chairperson. Locker charge of \$2.

342 GENERAL BIOCHEMISTRY I

3 sem. hrs.

A survey of the chemical and physical properties of amino acids, carbohydrates, lipids and nucleic acids, and the structure and function of proteins, including enzyme kinetics. Prerequisite: Chemistry 232 or one year of organic chemistry. Closed if had Chemistry 242.

343 BIOCHEMISTRY LABORATORY

3 sem. hrs.

Application of biochemical principles and methods discussed in the introductory companion course, Chemistry 342. Prerequisite: Chemistry 342 or concurrent registration, or Chemistry 242 and consent of instructor. Lecture and laboratory. Locker charge of \$2.

344 GENERAL BIOCHEMISTRY II

3 sem. hrs.

Continuation of Chemistry 342. A survey of the metabolism of biologically important compounds including enzymatic mechanisms, regulations, and energetics of the various pathways. Prerequisite: Chemistry 342 or Chemistry 242 with consent of instructor.

350 INORGANIC CHEMISTRY

3 sem. hrs.

A survey of modern inorganic chemistry including structure of inorganic compounds, coordination chemistry, non-aqueous solvents and selected inorganic reactions. Prerequisite: Chemistry 362 or consent of instructor.

351 INORGANIC PREPARATIONS

2 sem. hrs.

Preparation of typical inorganic compounds illustrating special and more advanced techniques. Prerequisite: Chemistry 350 or concurrent enrollment. Locker charge of \$2.

358 RADIOCHEMISTRY 2 sem. hrs.

A survey of nuclear models, theories, and decay schemes. Application of radio-chemical methods to elucidation of reaction mechanisms and molecular structure. Prerequisite: Chemistry 362.

380 TOPICS IN CONTEMPORARY

CHEMISTRY 1-3 sem. hrs.

New concepts and recent developments in the fields of organic, inorganic, analytical, physical and biochemistry. May be repeated for credit. Prerequisite: Consent of instructor.

404 ELECTRONICS FOR SCIENTISTS

3 sem. hrs.

Circuits of scientific instruments, electronic principles, servo systems, comparison measurements, operational amplifiers, feedback control, digital circuits, transistors, and vacuum tube circuits. Prerequisite: Chemistry 315 or graduate status in physics.

410 ADVANCED ANALYTICAL METHODS

3 sem. hrs.

Advanced study of selected areas of chemical analysis with special emphasis given to fundamental principles and applications to related disciplines. Prerequisite: Chemistry 315 or consent of instructor.

412 TOPICS IN ANALYTICAL CHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of modern analytical chemistry. Course may be repeated for

credit. Prerequisite: Chemistry 315 or consent of instructor.

420 ADVANCED ORGANIC CHEMISTRY

3 sem. hrs.

An advanced study of organic chemistry with emphasis on stereoisomerism, conformational analysis, resonance, synthesis, elucidation of structure, heterocyclic and natural products chemistry. Prerequisite: Chemistry 232 or equivalent.

422 MECHANISMS IN ORGANIC CHEMISTRY

3 sem. hrs.

A critical examination of nucleophilic, electrophilic and free radical reaction mechanisms including the study of the stability and reactivity of carbanions, carbonium ions and carbenes. Prerequisites: Chemistry 232 and credit or registration in 360.

424 TOPICS IN ORGANIC CHEMISTRY

1-3 sem. hrs.

Lectures in selected topics of modern organic chemistry. Course may be repeated for credit. Prerequisite: Organic Chemistry 232 or equivalent.

440 TOPICS IN BIOCHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of biochemistry. May be repeated for credit in consecutive semesters as different topics are introduced. Prerequisite: One year of biochemistry or consent of instructor.

450 ADVANCED INORGANIC CHEMISTRY

3 sem. hrs.

Interpretation and discussion of several areas of inorganic chemistry using modern theories.

452 PHYSICAL INORGANIC CHEMISTRY

3 sem. hrs.

Study of theoretical factors related to the properties of matter, including symmetry elements, group theory, and the application of various instrumental techniques to the study of the structure of inorganic

compounds. Prerequisites: Chemistry 315 and either 350 or 450.

454 TOPICS IN INORGANIC CHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of modern inorganic chemistry. Course may be repeated for credit. Prerequisite: Chemistry 350 or consent of instructor.

460 QUANTUM CHEMISTRY

3 sem. hrs.

An introduction to the methods of obtaining exact and approximate solutions to the Schroedinger equation, and the use of these solutions in the description of atomic and molecular systems. Prerequisites: Chemistry 362 and Mathematics 175, or consent of instructor. Mathematics 340 is also recommended.

462 INTRODUCTION TO STATISTICAL THERMODYNAMICS

3 sem. hrs.

An introduction to the methods and theorems of statistical mechanics, its relationship to chemical thermodynamics, and applications to molecular models of chemical interest. Prerequisites: Chemistry 362 or consent of instructor.

464 CHEMICAL KINETICS 2 sem. hrs.

The collection and interpretation of data on chemical kinetics and the application of the results to the determination of the mechanisms of chemical reactions. Prerequisite: Chemistry 362 or consent of instructor.

466 TOPICS IN PHYSICAL CHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of modern physical chemistry. Course may be repeated for credit. Prerequisite: Chemistry 362 or consent of instructor.

490 RESEARCH IN CHEMISTRY

Variable credit

Research involving the gathering of data to form the basis for the thesis. Open only to advanced graduate students. This course can be repeated for credit. Approval of the chairperson of the department is required.

491 INTERNSHIP-SEMINAR IN COLLEGE TEACHING IN CHEMISTRY 3 sem. hrs.
Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

492 SEMINAR IN CHEMISTRY 1 sem. hr.

Survey of current work in chemistry both in pure research and in the application of newer theories of chemistry to the teaching of chemistry on the secondary and college levels. May be repeated for a total of two semester hours.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student he may not count more than a total of six hours of 499 toward the master's degree.

AUXILIARY COURSES

Not applicable to an advanced degree in chemistry.

301 TEACHING OF HIGH SCHOOL CHEMISTRY 3 sem. hrs.

Prerequisite: 20 semester hours of Chemistry.

302 INDUSTRIAL CHEMISTRY 3 sem. hrs.

Prerequisite: 22 semester hours of Chemistry. Includes trips to industries and research labs.

311 LABORATORY INSTRUMENTATION 3 sem. hrs.

Prerequisite: 10 semester hours of Chemistry. Closed to majors. Lecture and laboratory. Locker charge of \$2.

360 PHYSICAL CHEMISTRY I 3 sem. hrs.

Prerequisites: Chemistry 141 or 150; Physics 109 or 111; eight semester hours of Chemistry or Physics courses numbered 200 or higher; Mathematics 116 or 136.

361 PHYSICAL CHEMISTRY LABORATORY I 1 sem. hr.

Prerequisite: Chemistry 360 or concurrent registration. Locker charge of \$2.

362 PHYSICAL CHEMISTRY II 3 sem. hrs.

Prerequisite: Chemistry 360.

363 PHYSICAL CHEMISTRY LABORATORY II 1 sem. hr.

Prerequisite: Chemistry 362 or concurrent registration. One three-hour laboratory period per week. Locker charge of \$2.

Curriculum and Instruction

(See Education)

Economics

Chairperson of the Department: James V. Koch. Office: Schroeder 338.

Teaching Staff: J. Chizmar, F. Firestone, W. Harden, M. Hassan, J. Koch, G. S. Laumas, B. McCarney, V. Owen, D. Poe, D. Ramsey.

MASTER'S DEGREE IN ECONOMICS

The Department of Economics offers work leading to the M.A. or M.S. degree. The student will ordinarily be expected to write a thesis for which four to six hours of credit will be given. If the student can demonstrate to the satisfaction of the Department chairperson that substantive writing in the discipline already has been done, the student may elect to take 32 semester hours of course work and write a comprehensive examination in lieu of the thesis. Economics 438, 440 and 441 are required of all master's degree candidates.

DOCTOR OF ARTS

The Doctor of Arts in Economics is designed to provide advanced practitioner training to in-

dividuals for the purpose of improved instructional and curricular development capabilities for undergraduate division courses in economics in two and four year institutions of higher education. Entry into the program ordinarily requires a master's degree or equivalent and previously successful professional experience in teaching. Each doctoral student is required to pass written comprehensive examinations in the economics core courses and one or two fields within economics. Each student, in consultation with his advisor, will select minor field(s) consisting of no more than two areas outside economics in which at least two courses in each area ordinarily will be completed. The program requires a Professional Studies in Higher Education component coordinated by the Department of Curriculum and Instruction. The program also requires a Seminar and Practicum in the Teaching of Economics. A preliminary oral examination follows completion of all course work.

The final requirement of the program is a dissertation focusing on the teaching of economics and/or curricular developments which demonstrate a combination of scholarly, analytical, creative and expository skills. The normal residence requirement is one year, but commuter students who demonstrate continuing progress in the program may have the residence requirement reduced to one semester. The student will be expected to fulfill all the requirements of the Graduate School. For additional information and a full statement of requirements, write the Chairperson, Department of Economics, Illinois State University.

COURSES

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

An intensive study of particular lands, environments, cultures and peoples. May be given in cooperation with other departments on or off campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

320 INDUSTRIAL ORGANIZATION AND PRICES 3 sem. hrs.

A theoretical and empirical analysis of the basic influences on industrial markets and industrial performance. Consideration is given to market practices, the role of competition and related policy issues. Prerequisite: Economics 101.

326 ECONOMICS OF HUMAN RESOURCES (Formerly MANPOWER ECONOMICS) 3 sem. hrs.

Theoretical and empirical analysis of labor markets. Education and training, labor mobility, wage structure, discrimination, unemployment, wage and income policies. Prerequisite: Economics 101.

330 MATHEMATICAL ECONOMICS 3 sem. hrs.

Quantitative techniques as they are applied to business and economic problems. Covers integral calculus, difference equations, differential equations and linear programming in relation to economic theory. Prerequisite: Economics 101 and course work in differential and integral calculus.

331 INTERMEDIATE ECONOMIC STATISTICS 3 sem. hrs.

Methods of collecting and analyzing economic data including descriptive statistics, probability, sampling distributions, hypothesis testing, estimation, linear regression, and data processing. Prerequisites: Economics 131 and course work in differential and integral calculus.

333 OPERATIONS RESEARCH 3 sem. hrs.

Quantitative techniques for economics analysis and decision making. Includes linear programming, input-output analysis, game theory, queuing theory, and probabilistic models, with emphasis on applications to theory of the firm. Prerequisites: Economics 131 and course work in differential and integral calculus.

335 ECONOMICS OF TRANSPORTATION AND PUBLIC UTILITIES (formerly TRANSPORTATION)
3 sem. hrs.

An analysis of contemporary issues in transportation and public utilities, with emphasis on the impact of regulation. Prerequisite: Economics 101.

339 MANAGERIAL ECONOMICS
3 sem. hrs.

Theoretical and applied study of demand, costs, and production related to the theory of the firm. Developments of current interest; empirical studies intended to affirm or disaffirm applicability of economic principles. Prerequisite: Economics 101.

340 INTERMEDIATE MICROECONOMIC THEORY 3 sem. hrs.

Theory of consumer choice. Theory of the firm. Market structures. Factor markets. Distribution of income. Welfare economics. General equilibrium. Emphasis throughout upon resource allocation, scarcity and the distribution of income. Prerequisite: Economics 101.

341 INTERMEDIATE MACROECONOMIC THEORY 3 sem. hrs.

Theory of income, employment, interest rate and price level determination. The government's influence on these variables via monetary and fiscal policies. Prerequisite: Economics 101.

345 INTERNATIONAL ECONOMICS
3 sem. hrs.

Designed to give such basic aspects of the international economy as the reasons for trade, the terms of trade, and the adjustments necessary to achieve the highest possible plane of living, as well as balance of payments and exchange theory. Consideration is given to contemporary applications such as exchange crises, trade barriers, and the links between trade and development. Prerequisite: Economics 101.

350 PUBLIC FINANCE
3 sem. hrs.

Economic role of government in the economy.

Analysis of the economic impacts of government expenditures and taxes on the allocation of resources, the distribution of income, employment, prices and economic growth. Prerequisite: Economics 101.

351 STATE AND LOCAL FINANCE
3 sem. hrs.

Economic impacts of state and local tax and expenditure programs, intergovernmental fiscal relations and problems of metropolitan areas. Prerequisite: Economics 101 or consent of instructor. Formerly Economics 451.

360 QUANTITATIVE ECONOMIC HISTORY
3 sem. hrs.

Recent empirical studies and applications of economic theory to historical problems in an American context.

372 HISTORY OF ECONOMIC THOUGHT
3 sem. hrs.

A study of economic analysis from the Mercantilists to the American Institutionalists. Relates earlier schools of thought to the contemporary. Prerequisite: Economics 101.

401 SURVEY OF ECONOMIC PRINCIPLES
3 sem. hrs.

For mature students who need an understanding of the basic tools of economic analysis. Compresses into a single semester matters ordinarily covered in two semesters of Economic Principles. Enrollment is limited to graduate students who have had no more than one semester of previous study in economics.

405 THEORIES OF ECONOMIC DEVELOPMENT
3 sem. hrs.

Consideration of economic development theories and their implications for development policy to further economic growth. Prerequisite: Economics 205 or equivalent.

409 ECONOMIC ISSUES IN SOCIALIST ECONOMIES
3 sem. hrs.

Topics covered include the labor theory of value,

surplus value, theories of rent, expanded reproduction, economic laws in capitalism and socialism, socialist pricing, centralized and decentralized planning, problems of measurement, the new class phenomenon, and criticisms of socialist concepts. Prerequisite: Economics 210 or equivalent.

410 SOVIET ECONOMICS

3 sem. hrs.

Economic growth of the Soviet Union. NEP and economic planning. Examination of particular sectors of the Soviet economy. Pricing, decentralization and economic reform. Prerequisite: Economics 101.

415 MONETARY ECONOMICS

3 sem. hrs.

The role of money in economic activity; the precise nature of the demand and supply conditions; the policy implications of theoretical conclusions with regard to money. Prerequisite: Economics 341 or equivalent.

416 STABILIZATION THEORY AND POLICY

3 sem. hrs.

Theory of economic policy, impacts of monetary and fiscal policies on employment and price levels, interest rates, growth, and balance of payments, implementation and coordination problems of monetary and fiscal policies. Prerequisite: Economics 341 or equivalent.

435 SEMINAR IN TRANSPORT AND PUBLIC UTILITY PRICING

3 sem. hrs.

Prerequisite: Economics 335 or 320.

438 ECONOMETRICS

3 sem. hrs.

Study of the linear regression model, properties of estimators, simultaneous equations, and specification and identification in economic theory and economic problems. Prerequisite: Economics 331, Mathematics 350, or consent of instructor.

440 ADVANCED MICROECONOMIC THEORY

3 sem. hrs.

The theory of the firm, the consumer and the

resource owner and the determination of prices under alternative market structures. Prerequisite: Intermediate Microeconomic Theory 340 or equivalent.

441 ADVANCED MACROECONOMIC THEORY

3 sem. hrs.

National income analysis with emphasis on the contemporary theories of consumption, investment and interest, also consideration of the level, growth and fluctuations of national income. Prerequisite: Intermediate Macroeconomic Theory 341 or equivalent.

445 INTERNATIONAL ECONOMIC ANALYSIS

3 sem. hrs.

In depth examination of issues from pure theory of trade and international finance with special emphasis to the international economy as a dynamic system. Growth and trade, balance of payments adjustment, and the theory of exchange rate determination are considered. Prerequisite: Economics 345.

450 ADVANCED PUBLIC FINANCE

3 sem. hrs.

Expenditure theories, cost-benefit analysis, tax incidence, welfare economics of public finance, and technical problems of income, sales, profit, and property taxes. Prerequisite: Economics 340 or equivalent.

470 THE PUBLIC FINANCE OF HIGHER EDUCATION

3 sem. hrs.

An investigation of topics and problems in the public finance of higher education. Topics will vary each semester, but the following will usually be covered: revenue policy and expenditure policy for higher education, program and performance budgeting and other efficiency concerns, investment in education and national economic growth, aspects of the business management of higher education. Course is cross-listed as Educational Administration 470. Prerequisite: Educational Administration 479, Economics 401 or permission of instructor.

490 SEMINAR IN ECONOMICS

1-4 sem. hrs.

491 INTERNSHIP IN COLLEGE TEACHING IN ECONOMICS

3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

492 GRADUATE READINGS IN ECONOMICS

1-3 sem. hrs.

For the graduate student who would benefit from a more specialized independent type of study adapted to his background and needs. To be taken by permission of the chairperson of the department and the instructor involved.

497 RESEARCH SEMINAR

1-6 sem. hrs.

Introduction to bibliography, methods of scholarly research and the critical evaluation of research in the field. May be repeated by more ad-

vanced students who desire direction and constructive criticisms as they pursue special research problems.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

599 RESEARCH IN ECONOMICS

Variable Credit

Research involving the gathering of data to form the basis of the dissertation required for the Doctor of Arts.

Education

Clinical Experiences and Admission-Retention in Teacher Education

Director: Louise E. Dieterle, 309 DeGarmo Hall.
Staff: Aden, Leonhard, Litchfield, Lundeen.

399 STUDENT TEACHING

**(or C&I 253 for elementary education ma-
jors) 1-10 sem. hrs.**

Prerequisites for high school student teaching PSY 215 and C&I 216, or the completion of the required prerequisites in C&I 200; for junior high school student teaching, C&I 290; for student teaching in special education, one of C&I 270, 280, or

290; for student teaching in elementary education, one of C&I 270, 280, or 290, or satisfactory completion of C&I 252. Satisfactory preparation in the area of specialization. Approval of the Director of Clinical Experiences. Fifteen semester hours of work (or its equiv.) at Illinois State University. For further information and other regulations, see **Requirements for Student Teaching** in the section on **Teacher Education**.

Directing the learning of pupils; participating in school and community activities; assuming full responsibility for a group of learners under the supervision of an expert teacher. Assignments are made on the basis of the student's area of specialization. High school student teaching assignments include work in special methods in the subjects taught.

Curriculum and Instruction

Chairperson of the Department: Thelbert L. Drake. Office: DeGarmo Hall 232.

Teaching Staff: R. Baker, F. Belshe, M. Berson, A. Bjork, S. Blankenship, F. Bowren, L. Brubaker, C. Bunke, J. Cantlon, R. Clack, R. Conyne, J. Crotts, T. Drake, L. Eastman, C. Edwards, T. Edwards, R. Eiben, J. Ewing, T. Fitch, W. Frinsko, J. Goeldi, R. Goodall, I. Grief, R. Halinski, G. Heath, C. Hicklin, Q. Hrudka, M. Huser, E. Irving, H. Jones, D. Kachur, L. Kennedy, F. Lewis, D. Livers, M. Lorber, N. Madore, R. Meyerling, M. Miller, W. Miller, A. Milliren, R. Moore, W. Pierce, G. Ramseyer, V. Replogle, D. Rhodes, V. Schnepf, C. Sherman, A. Slan, H. Stern, F. Taylor, W. Venerable, M. Waimon, R. Youngs, W. Zeller.

PROGRAMS OFFERED

Master's programs with advisement in the Department of Curriculum and Instruction are offered in Counselor Education, Elementary Education, Reading, and Supervision. University requirements for master's degrees are given elsewhere in this catalog. A student may elect one of three alternate plans for the degree. One may elect to do a thesis for which the student may receive from four to six hours of credit in 499, or elect to do 32 hours of course work and take a comprehensive examination, or elect to do 39 hours of course work not including a thesis nor a comprehensive examination. Specific course requirements are listed under the various programs.

COUNSELOR EDUCATION

A student may work toward a Master of Arts, a Master of Science, or a Master of Science in Education degree by fulfilling the requirements specified in this catalog. To be admitted to Counselor Education, a student is required to have 12 hours of Behavioral Science at the undergraduate level. The following courses are required in all master's degree programs in Counselor Education: Curriculum and Instruction 360, 460, 462, 463, 464 and Psychology 420. Ad-

ditional courses are selected following recommendations of the adviser with reference to the following areas of specialization:

A. Elementary School Counseling. Prepares counselors for elementary and junior high schools. Persons completing this program ordinarily will be eligible for the Special Certificate in Guidance in the State of Illinois.

B. Secondary School Counseling. Prepares counselors for secondary schools. Persons completing this program ordinarily will be eligible for the Special Certificate in Guidance in the State of Illinois.

C. Counseling in Higher Education. Prepares counselors for junior and senior colleges, and student personnel workers for institutions of higher education.

ELEMENTARY EDUCATION

A student may work toward a Master of Arts, a Master of Science, or a Master of Science in Education degree by fulfilling the requirements specified in this catalog. The following three alternative programs are available in which electives, through advisement may be taken in related areas of specialization.

Alternative I is a 32 semester hour program requiring 26-28 hours in course work plus four to six hours for thesis credit. A minimum of 12 semester hours in education is required, including Curriculum and Instruction 403, 475, 476 and three hours selected under advisement.

Alternative II is a 32 semester hour program and a comprehensive examination. Course requirements are the same as Option I.

Alternative III is a 39 semester hour program applicable to the Master of Science in Education degree. A minimum of 15 semester hours in education are required including Curriculum and Instruction 403, 475, 476, 479, and 496. Curriculum and Instruction 496 is required after the student has completed 27-30 semester hours.

Area Specializations:

Academic Field: Students may elect to pursue a

study concentration within an academic discipline. Advisement appropriate to the area of study will be provided.

Early Childhood Education: Students may elect to pursue a specialization in early childhood education relative to career objectives.

Elementary Curriculum: Students interested in curriculum and curriculum theory and development are advised to pursue an emphasis in this area. Especially recommended for students planning to become curriculum specialists, and teaching team leaders.

Reading: The student should take 15-18 hours of reading, under advisement.

Preparation to Teach: Students with an earned degree in a field other than Elementary Education may pursue a graduate program of studies designed to prepare the student for teaching at the Elementary Level. The certification requirements will usually be satisfied through this program.

Urban Education: Special program alternatives are available for those students who wish to declare special career interests in urban education.

READING

Requirements for a Master of Science in Education with specialization in reading will vary somewhat depending upon the area or level of reading in which the graduate student plans to concentrate. However, all students are expected to have a common base of knowledge about reading processes, diagnosing reading abilities and providing desirable programs in reading.

Students who elect an M.S. in Education with a specialization in reading will be required to have a minimum of one undergraduate course in reading and will demonstrate a proficiency in word analysis skills. Students who have deficiencies will be admitted conditionally to the program pending completion of their deficiencies.

All students in the reading program will be expected to complete successfully at least one reading practicum. Assignment of academic advisement of students will depend on their selection from among the following areas of concentration:

A. Remedial Reading. Major emphasis upon

diagnosis and educational accommodation of special cases of severe reading disability.

B. Elementary School Reading. Emphasis upon the roles of teachers and reading consultants in developmental reading programs for elementary education.

C. General, Secondary, and Higher Education Reading. Developmental programs and general functions of reading specialists or consultants and the kinds of services provided in general, secondary, or higher education.

The following courses are required in each of the above areas:

1. Curriculum and Instruction 475, 476, and one course in history, philosophy, or social foundations of education.

2. 18 semester hours of study from among the following reading courses as advised: Curriculum and Instruction 303, 306, 307, 308, 401, 402, 406, 408, 419, 420, and other classroom diagnostic courses in reading.

Other courses, workshops, etc., in reading may be used to fulfill the requirements in No. 3 below, but they **cannot** be used to substitute for the courses listed above.

3. Additional courses to complete the program requirements as advised.

SUPERVISION

(1) For Persons Desiring Certification

While courses and advisement in this field fall mainly in the Department of Curriculum and Instruction, students may be assigned to advisers in other departments for study for supervision in special areas.

The following courses are required in the Supervision curriculum, regardless of the specialization: Curriculum and Instruction 387, 437, 475, 476, 477, 478, and Educational Administration 481.

A graduate course is also required for all candidates in the Supervision curriculum from one of the following fields: History of Education, Philosophy of Education, or Social Foundations of Education.

If specialization is in Elementary Supervision,

the additional course, Curriculum and Instruction 403, is required.

If specialization is in the Supervision of Student Teaching, the additional course Curriculum and Instruction 497, is required.

Additional courses are to be selected following recommendation of adviser. Such courses may include those to be taken in other departments.

Students entering this curriculum should hold a teaching certificate. Students without teaching experience may be admitted to the program but will be expected to obtain such experience prior to admission to candidacy for the degree.

Persons completing this program ordinarily will be eligible for a supervisory certificate in the State of Illinois.

(2) For Persons Not Desiring Certification

If a person outside the field of professional education has a need for a program in supervision but does not need certification, an individualized program can be designed to meet the needs. The student will be advised in the Department of Curriculum and Instruction but with close consultation with one or more people in other departments where the student may desire to do a considerable amount of his academic work.

302 PROSPECTUS IN ELEMENTARY EDUCATION **3 sem. hrs.**

The evolution of elementary education including its role in contemporary society. Not for credit for students in teacher education.

303 PRACTICUM IN UNIVERSITY READING CENTER **3 sem. hrs.**

Observation and participation to provide skills necessary for working in a reading-study center in high school, junior college and senior college. Prerequisite: Curriculum & Instruction 218 or reading portion of 200 or 307 and consent of instructor. Six hours each week.

304 COLLOQUIUM: MUSIC, ART, AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL **3 sem. hrs.**

The objectives and values of art, music, and physical education and their role in the elementary school curriculum will be presented. Special emphasis will be given to the elements common to each area of instruction as well as to the role of art, music and physical education in the curriculum.

306 READING DEVELOPMENT FOR EARLY ADOLESCENCE **3 sem. hrs.**

Provides the junior high/middle school person with knowledge, skills, and abilities to work with the developmental reading growth of early adolescents. A practicum experience is provided.

307 ADVANCED READING METHODS **3 sem. hrs.**

Practical problems utilizing group techniques in teaching reading in elementary classroom. Integrates reading with non-reading learning activities. Prerequisite: Curriculum and Instruction 220.

308 TEACHING ADULTS TO READ **3 sem. hrs.**

Nature and needs of the population of reading programs for adults. Goals, techniques, content, and materials. Prerequisite: One course in teaching of reading.

309 ADULT EDUCATION PROGRAMS **3 sem. hrs.**

Instruction, direction, and administration of public school adult education. The adult learner, his needs and characteristics; facilities, staff, supervision and administration of adult education programs.

310 ELEMENTARY SCHOOL CURRICULUM **4 sem. hrs.**

Conceptual and structural design of elementary school curriculum. Prerequisite: Curriculum and Instruction 270, 280, or 290; or consent of instructor.

311 TEACHING IN URBAN ELEMENTARY SCHOOLS 3 sem. hrs.

Processes and effects of urbanization on elementary school children; adaptation of curriculum materials, techniques, procedures, and practices for teaching in urban elementary schools.

312 URBAN FIELD EXPERIENCE

324 SELECTED TOPICS IN THE HISTORY OF EDUCATION

1-3 sem. hrs.

The field of study will vary according to the interest and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once. Prerequisite: Curriculum and Instruction 335 or one upper level course in history or consent of instructor.

326 SELECTED TOPICS IN THE PHILOSOPHY OF EDUCATION

1-3 sem. hrs.

The field of study will vary according to the interest and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once. Prerequisite: Curriculum and Instruction 231, or one upper level course in philosophy, or consent of instructor.

328 THE SCHOOL AS A SOCIAL INSTITUTION 3 sem. hrs.

Utilization of social scientific concepts in the study of education. Emphasis on organization and functions of the school as a social institution. Prerequisite: Completion of University Studies requirements in social science or consent of instructor.

330 MAN AND THE ANALYSIS OF EDUCATION 3 sem. hrs.

Fundamental dimensions of foundational inquiry, historical, philosophical, social, and comparative foundations of education. Emphasis on relationship between selected views of man and their implications for education.

332 EDUCATION IN THE INNER CITY 3 sem. hrs.

Problems of educating students living in inner city. Student characteristics, needed teacher skills and attitudes, instructional materials, techniques, school and community programs. Prerequisite: Curriculum and Instruction 270, 280 or 290 or appropriate portion of Curriculum and Instruction 200. Field Trips.

333 THE JUNIOR HIGH SCHOOL 2 sem. hrs.

Philosophy, functions, curricula of early adolescent education as implemented in junior high/middle schools. Relationships between pupils, developmental characteristics, needs, and behaviors and development of school programs. Problems, issues, evaluation and accreditation of junior high/middle schools.

335 HISTORY OF EDUCATION 3 sem. hrs.

Development of European and American educational systems and programs. Historical perspective of modern educational problems.

336 INTRODUCTION TO COMPARATIVE EDUCATION 3 sem. hrs.

Comparative analysis of major ideas and institutions of selected national systems of education. Problems related to developments in American education. For non-teachers only.

340 STATISTICS I 3 sem. hrs.

Application and interpretation of basic statistics used in the behavioral sciences: descriptive statistics, simple hypothesis testing and two-variable regression. Prerequisite: Psychology 111 or Sociology 106. Also offered as Sociology 340 and Psychology 340.

353 CONTEMPORARY PROGRAMS IN ELEMENTARY SCHOOL SCIENCE 3 sem. hrs.

Student investigations of ESS, SCIS, AAAS, COPES, materials commensurate with his teaching

grade level. Emphasis placed on the investigative approach to the teaching of elementary science. Prerequisite: Curriculum and Instruction 230 or consent of instructor.

**354 DEMONSTRATION TECHNIQUES IN
ELEMENTARY SCHOOL SCIENCE
2 sem. hrs.**

Basic theory, rationale, and principles of effective demonstration science teaching in elementary school science. Includes analysis, synthesis, and utilization of both commercial and individually constructed demonstration apparatus and materials. Students will develop and use demonstration materials. Prerequisite: Curriculum and Instruction 230, 252 or consent of instructor.

**360 PRINCIPLES OF GUIDANCE
3 sem. hrs.**

Backgrounds, philosophy, and services in school guidance programs. Appraisal, informational and counseling services. Role of the classroom teacher; organization of guidance activities.

**361 STUDENT PERSONNEL WORK IN
HIGHER EDUCATION 3 sem. hrs.**

Fundamental concepts, organization and administration of higher education student personnel work. The student personnel worker as a facilitator in the changing educational scene.

**387 MEASUREMENT AND EVALUATION
IN EDUCATION 3 sem. hrs.**

Development, use and improvement of standardized and teacher-made tests and self-rating devices. Interpretation of test data and use of test results. Appropriate for elementary, secondary and college levels.

**399 STUDENT TEACHING
1-10 sem. hrs.**

(See Clinical Experience and Admission - Retention in Teacher Education 399.)

**401 PSYCHOLOGY OF TEACHING
READING
3 sem. hrs.**

The study, analysis and investigation of psychological aspects of the act of reading.

**402 RECENT RESEARCH IN READING
3 sem. hrs.**

Analysis of recent research in reading at the elementary, secondary, and college levels together with its implications in the areas of modified practices in the teaching of reading, materials of instruction, and teacher preparation.

**403 ORGANIZATION AND MANAGEMENT
OF CLASSROOM LEARNING
3 sem. hrs.**

The role of the classroom teacher in effective learning practices in the changing elementary school. Organizing the school for effective living and learning; effective approaches to learning in the various curriculum areas in order to care for individual differences among children in the classroom.

**404 INSTRUCTIONAL PROCEDURES IN
ELEMENTARY EDUCATION 3 sem. hrs.**

Study of selected instructional procedures employed in elementary education. Planning for instruction, determining of educational goals, nature of substantive content and the uses of staff. Prerequisite: Consent of the instructor.

**405 NURSERY-KINDERGARTEN
EDUCATION 3 sem. hrs.**

Criteria and procedures for developing, organizing and administering early education programs. Intended for persons who plan to be responsible for the establishment and supervision of nursery-kindergarten programs. Prerequisite: Consent of the instructor.

**406 ADVANCED SECONDARY SCHOOL
READING 3 sem. hrs.**

The role of the reading specialist in the secondary school; special provisions for meeting the reading needs of high school students; techniques and materials suitable for use in the secondary school; procedures for developing reading skills in the content areas. Prerequisite: One course in reading.

408 PRACTICUM IN READING FOR CLASSROOM TEACHERS 3 sem. hrs.

Designed for classroom teachers to help pupils in regular classrooms to overcome their reading problems. Through observation and participation in classrooms, students will become acquainted with ways of diagnosing and correcting reading difficulties. Individual and group conferences with the instructor will be scheduled. Prerequisite: Curriculum and Instruction 307 or permission of the adviser.

419 SEMINAR IN READING 3 sem. hrs.

The content of the course will depend upon the needs and backgrounds of the students. Group and individual study of current practices, trends, and issues in reading will be employed. Prerequisite: 9 semester hours of graduate work in reading or the consent of the instructor.

420 SEMINAR IN DIAGNOSIS AND CORRECTION OF READING DISABILITIES 3 sem. hrs.

Study in the causes and remediation of reading disabilities. Research findings will be utilized for suggested diagnosis and correction of various types of reading problems. Prerequisite: Curriculum and Instruction 301 or 401.

424 EDUCATIONAL CLASSICS 3 sem. hrs.

Historic conceptions of education and their relevance to programs and practices today. Readings in the works of such leading educational thinkers as Plato, Locke, Rousseau, and Dewey. Prerequisite: One course in history or philosophy of education or consent of the instructor.

426 EDUCATION AND SOCIAL ISSUES 3 sem. hrs.

Analysis of the relationship between educational institutions and the larger society. Emphasis on the problems raised by race, religion, social class, youth sub-cultures, the allocation of human resources and the means for resolving these problems. Prerequisites: Graduate standing in Curriculum and Instruction, Economics, Sociology, Political Science or consent of instructor.

428 SEMINAR IN FOUNDATIONS OF EDUCATION 2-3 sem. hrs.

Intensive inquiry into the educational significance of problems generated by philosophical, social, or historical issues. Prerequisite: One graduate level course in the discipline appropriate to the study undertaken, or consent of the instructor.

430 WORKSHOP IN EDUCATION 2-6 sem. hrs.

For experienced professional workers in the field of education. Emphasis given to serving superintendents, principals, supervisors, and teachers, who are presently responsible for some aspect of curriculum study and or program improvement in their schools. Prerequisite: Teaching experience.

431 INDIVIDUALIZED FIELD WORK IN EDUCATION 2 or 3 sem. hrs.

Direct experiences in working with elementary or high school students, public school curricula and staff and/or community groups involved in public school programs are provided. Approval for selecting this course and arranging for individual field work must be made by the department chairperson.

432 PHILOSOPHY OF EDUCATION 3 sem. hrs.

Social forces and schools of philosophical thought which have contributed to education and which are influencing current educational practices. To help the student achieve a functional educational philosophy applicable in his teaching situations.

437 ANALYSIS OF TEACHING 3 sem. hrs.

For various school personnel, including prospective college teachers of education who are interested in methodical study of teaching behavior. Major research attempts in assessing teacher effectiveness and problems connected with such efforts. Descriptive studies and conceptual systems of teaching, their nature and possible uses.

439 APPLIED CHILD GROWTH AND DEVELOPMENT FOR THE ELEMENTARY TEACHERS 3 sem. hrs.

Application of principles of child growth and

development in the elementary classroom. Practice in the use of scientific procedures in the discovery of causes and the solution of classroom problems. Prerequisite: Curriculum and Instruction 210 or consent of the instructor.

440 STATISTICS II 3 sem. hrs.

The logic of statistical inference. An examination of the statistical techniques most commonly employed in research in education and the behavioral sciences. Topics included are interval estimation the *t* and *f* tests, chi-square, one factor analysis of variance, multiple regression, and non-parametric statistics. The emphasis is on application and interpretation. Prerequisite: Curriculum and Instruction 340.

441 EXPERIMENTAL DESIGN 3 sem. hrs.

The statistical principles of widely employed designs, including simple randomized, factorial, repeated measures, randomized blocks, latin square and analysis of covariance. Topics such as multiple comparisons, power and trend analysis are also covered. Prerequisites: Curriculum and Instruction 340, 440 (Statistics I and II).

450 LANGUAGE ARTS INSTRUCTIONAL STRATEGIES 3 sem. hrs.

Analysis and application of learning theories and child growth and development principles to curriculum organization, instructional materials and techniques for elementary school language arts programs.

452 ELEMENTARY SCHOOL SOCIAL STUDIES: INSTRUCTIONAL STRATEGIES 3 sem. hrs.

Utilization of the structure, concepts and modes in inquiry of the social sciences in implementing curriculum trends and innovations in elementary school social studies programs. Instructional strategies, such as inquiry and simulation, techniques for developing skills, understandings and attitudes characteristic of the social studies. Prerequisite: Curriculum and Instruction 476 or consent of instructor.

453 ELEMENTARY SCHOOL SCIENCE: INSTRUCTIONAL STRATEGIES 3 sem. hrs.

Curricular content and methods of guiding learning in science instruction. Contemporary elementary school science programs, such as AAAS, SCIS, ESS and ISCS. Teaching materials and strategies appropriate to the varying abilities of children and verified by the findings of research. Prerequisite: Curriculum and Instruction 476 or consent of instructor.

454 INDIVIDUALIZING SCIENCE INSTRUCTION 3 sem. hrs.

Rationale, psychological basis of, principles and theories of individualizing science instruction; the role of the teacher, the learner, classroom management, evaluating pupil progress, and implementation procedures will be considered. Primary emphasis upon construction of individualized instruction modules in science.

460 GUIDANCE APPRAISAL 3 sem. hrs.

The administration and interpretation of appraisal techniques appropriate to the student's level of interest: elementary, secondary, or higher education. Special emphasis on student self-appraisal. Prerequisite or concurrent registration: Curriculum and Instruction 360.

461 ORGANIZATION OF GUIDANCE SERVICES 3 sem. hrs.

The activation, organization, administration and utilization of guidance services. Selection of personnel, in-service education of the staff, evaluation of the program and steps in the introduction of a comprehensive program are considered. Prerequisite: Curriculum and Instruction 360.

462 PRACTICUM IN COUNSELING AND GUIDANCE 3-6 sem. hrs.

Supervised experience in individual and/or small-group counseling. May be repeated for credit for a total of six semester hours. Prerequisites: Curriculum and Instruction 360, 464, and permission of instructor.

**463 THEORY AND PRACTICE IN
GROUP COUNSELING**
3 sem. hrs.

Participation in a group with associated study of interpersonal relationships through tapes, films, observation, and related reading. Also includes study of relevant theories of group counseling and interaction. May be repeated for credit for a total of six semester hours. Prerequisite or concurrent registration: Curriculum and Instruction 360.

**464 THEORIES AND TECHNIQUES
OF COUNSELING**
3 sem. hrs.

Goals, methods and procedures as seen from a number of differing theoretical positions. Emphasis on interpersonal dimensions of counseling interviews. Case material illustrating applications in a variety of counseling situations—schools, community, college and university, focusing on problems of personal-social, educational, and vocational adjustment.

465 VOCATIONAL COUNSELING **3 sem. hrs.**

Acquiring and using occupational and educational information. Consideration of job requirements and training opportunities; developing occupational units; nature of vocational development.

466 JUNIOR COLLEGE COUNSELING
3 sem. hrs.

Problems and characteristics of counseling in community junior colleges. Prerequisites: Curriculum and Instruction 360 and either Educational Administration 472 or Junior College experience.

**467 THEORY AND PRACTICE IN
ELEMENTARY SCHOOL COUNSELING**
3 sem. hrs.

Counseling and guidance services for the elementary school with major emphasis on counselor role, application of counseling theory, technique, and practice to the elementary school setting. Designed for those who intend to specialize in counseling and

guidance in the elementary school. Prerequisites: Curriculum and Instruction 360 and consent of instructor.

474 SEMINAR IN COLLEGE TEACHING
3 sem. hrs.

The roles and responsibilities of the college teacher and the competencies necessary for effective teaching. Emphasis on analysis of alternative models for instruction and their relation to classroom practice. Each student is expected to undertake reading and research on problems of college teaching in his area of specialization.

475 INTRODUCTION TO RESEARCH
3 sem. hrs.

Selection of a research problem, collection of data, types of research, the research report and use of the library in connection with the research problem. Emphasis on understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis. Enables the student to become an intelligent consumer of the products of educational research.

476 CURRICULUM THEORY **3 sem. hrs.**

The nature of curriculum theory and the sources of knowledge utilized in the formulation of curriculum theory. Critical analysis of major curriculum patterns that have emerged in American education. Approaches to curriculum study, revision and evaluation.

477 SUPERVISION OF INSTRUCTION
3 sem. hrs.

The improvement of instruction through supervision. Emphasizing the leadership role; recent research concerning pupils learning group dynamics; action research and its application. Evaluation of pupils, teachers, supervisors and supervisory practice.

**478 SEMINAR IN SUPERVISION
OF INSTRUCTION** **3 sem. hrs.**

Prerequisite: Curriculum and Instruction 477.

479 RESEARCH STUDIES IN ELEMENTARY CURRICULUM 4 sem. hrs.

Examination of the professional literature that reports established trends, research efforts and practice in elementary curriculum. Emphasis on the broad themes which transcend the separate disciplines in elementary education. Three hours of classroom work and one hour in a field laboratory project. Prerequisite: Curriculum and Instruction 476 or consent of instructor.

481 SEMINAR IN CURRICULUM EVALUATION 3 sem. hrs.

Seminar for graduate students interested in evaluating instruction. At the end of the seminar participants will have systematically obtained data on an innovative project, and made value-assessments of the project based on these data. The evaluation studies may be used to improve the project studies, or as the basis for a doctoral dissertation, or publishable paper. Prerequisite: Curriculum & Instruction 476 or consent of instructor.

487 ADVANCED EARLY CHILDHOOD EDUCATION 3 sem. hrs.

The utilization of current concepts in early childhood education to be made available to graduate students who are working in schools and other appropriate educational settings. Prerequisite: Professional experience with children or consent of instructor.

488 DESIGN AND IMPLEMENTATION OF CONTEMPORARY COMPREHENSIVE EARLY CHILDHOOD EDUCATION PROGRAMS 3 sem. hrs.

The design and implementation of programs concerned with infants, toddlers, pre-kindergarten and early elementary school children in educational settings. Prerequisites: Professional involvement in an agency or institution providing early childhood education programs, Curriculum and Instruction 487 or consent of instructor.

490 RESEARCH METHODOLOGY IN EDUCATION 1-6 sem. hrs.

Provides for individualized and advanced study of methodology specific to the student's research interest. Consult instructor prior to registration. Prerequisites: Curriculum and Instruction 340 and 475 or consent of instructor.

491 INTERNSHIP IN COLLEGE TRAINING 3 sem. hrs.

A short apprenticeship in college teaching. Each intern is placed by his department with a supervising instructor in his major area. Guided experiences in planning, teaching and evaluating a college class are supplemented by attendance at some departmental meetings and conferences. Interns confer periodicaly with a member of the Center staff.

493 PERSPECTIVES OF TEACHER EDUCATION 3 sem. hrs.

For advanced graduate students preparing for positions associated with the preparation of teachers and specialized school personnel. Admission, curricula, instruction, certification, accreditation, evaluation, problems, issues and trends in the selection and preparation of teachers. Prerequisite: Master's degree or permission of instructor.

495 SEMINAR IN CURRICULUM 3 sem. hrs.

Major developments and experimental programs impacting upon school curricula. Students identify curriculum innovations for depth study. Prerequisite: Advanced graduate standing or special permission of the instructor and Curriculum and Instruction 476.

496 SEMINAR IN ELEMENTARY EDUCATION 3 sem. hrs.

Prerequisite: Consent of the instructor.

497 PROFESSIONAL LABORATORY EXPERIENCE 3 sem. hrs.

The role of professional laboratory experiences in teaching and learning. Significant trends, philosophies and programs of teacher education. For

experienced teachers, supervisors of instruction, school administrators and college teachers associated with teacher education programs.

498 INTERNSHIP 3-8 sem. hrs.

Opportunities to work with principals, superintendents, teachers and lay groups in public school situations. Of special benefit to inexperienced students and for those preparing for administrative work in public schools. Assignments are made by the Dean of the Graduate School on recommendation of

the student's academic adviser at least two months prior to beginning internship.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

Educational Administration

Chairperson of the Department: Clayton Thomas. Office: 331 DeGarmo Hall.

Teaching Staff: M. Chambers, C. Edwards, E. Egelston, G. A. Hickrod, B. Hubbard, R. Laymon, J. H. McGrath, K. Scott, G. Smith, C. Thomas, D. G. Watson.

PROGRAMS OFFERED

Work leading to a master's degree, Specialist in Education degree, and the Ed.D. and Ph.D. degrees is offered in Educational Administration.

MASTER'S DEGREE PROGRAM

At least 20 semester hours of coursework in Educational Administration and supervision as approved by the department as equivalent are required including Curriculum and Instruction 475 and 476; Educational Administration 478, 479, and 481; Sociology 465; and for the 39-hour master's degree program described below, Educational Administration 582. Additional courses are selected with the recommendations and consent of the adviser in this curriculum.

Students without teaching experience may be admitted to this program but will be expected to obtain experience in education prior to certification for administrative positions in Illinois public schools.

University requirements for master's degree programs are listed elsewhere in this catalog. In addition to the regular requirements, a Master of Science

in Education may be awarded in Educational Administration upon the completion of 39 hours of course work provided that the above requirements are met and at least six hours are taken in fields other than Education.

A program in educational administration and special education is offered in cooperation with the Department of Special Education. Consult the chairperson of either department for details of the program.

SPECIALIST AND DOCTORAL PROGRAMS

The Department offers work leading to the Specialist in Education degree and the Ed.D. and Ph.D. degrees in Educational Administration. These programs have as their major purpose the preparation of administrators in educational institutions at all levels. In addition, the doctoral program may prepare individuals for research positions in educational administration. University requirements for these degree programs are listed elsewhere in this catalog.

COOPERATIVE PROGRAM WITH SANGAMON STATE UNIVERSITY

Through a joint agreement with Sangamon State University students may take approved courses from either of the universities and receive commensurate credit toward a specialist degree in educational administration, which will be awarded by Illinois State University. Students in the program

must take a minimum of 15 hours, plus a research project with Illinois State University faculty on either campus. The ISU faculty will regularly offer course-work on the SSU campus. The cooperating universities are treated as a single site with regard to the fulfillment of residence requirements.

FOREIGN LANGUAGE REQUIREMENTS FOR Ph.D. CANDIDATES

General Graduate School requirements apply. However, when approved by the chairperson of the Department of Educational Administration and Dean of the Graduate School, a student may substitute evidence of proficiency in statistics for one of the two foreign languages specified in the general requirements for the Ph.D. degree. Evidence of having met this statistical proficiency may be shown by:

1. Successful completion of two 400 level courses in statistics and/or psychometrics, or

2. Passing an examination showing proficiency expected of one having completed two 400 level courses in statistics and/or psychometrics. An examination prepared for this latter option should be the joint responsibility of the Department of Psychology and the Department of Educational Administration.

COURSES

430 WORKSHOP IN EDUCATION

2-6 sem. hrs.

(See Curriculum and Instruction 430).

431 INDIVIDUALIZED FIELD WORK IN EDUCATION

2 or 3 sem. hrs.

(See Curriculum and Instruction 431). Consent of Department Chairperson.

470 THE PUBLIC FINANCE OF HIGHER EDUCATION

3 sem. hrs.

Course is cross-listed as Economics 470. Prerequisite: Educational Administration 479, Economics 400, or permission of the instructor.

471 COLLEGE ADMINISTRATION

3 sem. hrs.

472 THE COMMUNITY (JUNIOR) COLLEGE

3 sem. hrs.

History and development, functions, curricula, instruction, organization, financing and current problems of the community college. The community college is studied in relation to other units of the higher education system.

473 SEMINAR IN THE COMMUNITY

(Junior College)

3 sem. hrs.

Special problems related to the community college such as improvement of instruction, adopting new missions and programs and meeting societal pressures for change. The content of the course will vary from semester to semester in part, according to the needs and interests of the students.

478 LEGAL BASES OF PUBLIC EDUCATION

3 sem. hrs.

479 FINANCIAL BASES OF PUBLIC EDUCATION

3 sem. hrs.

480 EDUCATIONAL FACILITIES PLAN- NING

3 sem. hrs.

481 ADMINISTRATION AND ORGANIZA- TION OF SCHOOLS

3 sem. hrs.

485 THE PRINCIPALSHIP

3 sem. hrs.

486 PERSONNEL ADMINISTRATION

3 sem. hrs.

Provides general understanding of personnel functions in education. Special emphasis on manpower planning, recruitment selection and appraisal of personnel and negotiations.

487 ORGANIZATION DEVELOPMENT

3 sem. hrs.

Emphasis will be on conceptual understanding and skill development in planned change, conflict

management, interpersonal communications, group processes and team building as they relate to improving organizations.

**494 RESIDENT RESEARCH SEMINAR
IN EDUCATION**
1 sem. hr.

For advanced resident graduate students in education. Application of research and research technology to the field of education. Utilization of university, college and department resources will be explored. May be repeated. Prerequisite: Advanced graduate standing.

498 INTERNSHIP
3-8 sem. hrs.

**499 INDEPENDENT RESEARCH FOR THE
MASTER'S THESIS**
1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

576 ADMINISTRATION OF INSTRUCTIONAL PROGRAMS
3 sem. hrs.

Administrative strategies for implementing, maintaining, changing, and evaluation of instructional programs and curriculum.

**579 RESEARCH SEMINAR ON THE PUBLIC
FINANCE OF EDUCATION**
3 sem. hrs.

Seminar for graduate students who wish to understand and conduct research on the financing of education at K-12, junior college, and higher education levels.

**582 ADMINISTRATION AS A SCIENCE
AND AN ART**
3 sem. hrs.

Second course in a basic sequence of an administration core; sociological and behavioral im-

plications for organization and administration. Prerequisites: Educational Administration 481 and advanced graduate standing.

583 EDUCATIONAL LEADERSHIP
3 sem. hrs.

Designed to provide an understanding of the leadership function in formal and informal organizations. Required of all doctoral candidates in school administration. Prerequisites: Educational Administration 481 and 482 and admission to the doctoral program.

**584 SUPERINTENDENT AND
CENTRAL STAFF**
3 sem. hrs.

Development of knowledge, responsibilities, and competencies required of chief administrative officer, and in the case of larger districts, his central staff. Prerequisite: Advanced graduate standing.

**586 MANAGEMENT OF EDUCATIONAL
FUNDS** **3 sem. hrs.**

Development of high competence and deeper concepts of school finance, with particular emphasis on the management phase. Includes management of all school funds, program budgeting, financial accounting, financial statements and reports, safeguards, debt service, and management of special problems of finance. Prerequisite: Educational Administration 479 or approval of instructor.

**589 FIELD WORK IN EDUCATIONAL
ADMINISTRATION**
3-4 sem. hrs.

Provides responsibilities and experiences in the study of administrative problems in school-community setting. Prerequisites: Advanced standing and consent of instructor.

**594 RESEARCH SEMINAR IN
EDUCATIONAL ADMINISTRATION**
3 sem. hrs.

Designed for dissertation proposal development for doctoral (and specialist) students. Emphasis on the design of a proposal ready for committee consideration. Study of the various methodological and design components. Successful completion of the work is the approved proposal.

596 SEMINAR IN EDUCATIONAL ADMINISTRATION 3 sem. hrs.

Designed for advanced graduate students in Educational Administration. Content will vary according to the needs of students and the emerging problems that need depth study. May be repeated providing the subject matter is not repeated. Prerequisite: Advanced graduate standing.

English

Chairperson of the Department: William R. Linneman. Office: Stevenson Hall 409-D.

Director of Graduate Studies: Ray L. White. Office: Stevenson Hall 420-B.

Teaching Staff: R. Allen, R. Bellas, F. Bishop, I. Brosnahan, L. Brosnahan, G. Canning, C. Cox, N. Crowell, R. Dammers, P. Drawver, R. Duncan, K. Easson, R. Easson, D. Ericksen, L. Getsi, V. Gimmedstad, C. Harris, J. Heissler, J. Hill, D. Holden, V. Hutton, M. Jochums, S. Kagle, W. Linneman, E. McMahan, W. Morgan, T. Ranta, S. Renner, C. Richardson, J. Scrimgeour, R. Sutherland, R. Tarr, D. Vetter, R. White, L. Wilcox, W. Woodson.

The Department of English offers work leading to the master's degree in two areas: the Arts and Sciences area and the teaching area.

In the Arts and Sciences area, the student must, except in Special Studies Options, complete all 32 hours of classwork in the English Department. The student may usually not apply toward the degree courses that are peculiar to institutes and similar programs. The student may work toward a Master of Arts degree or a Master of Science degree by fulfilling the Special Degree requirements specified in this catalog.

In the teaching area, the student may elect to fulfill the requirements of the College Teaching Program, the Community College Teaching Program, the Secondary Teaching Program, the K-9 English Teaching Program, or other Special Studies Options offered by the Department. The student may work toward a Master of Arts degree or a Master of Science degree in teaching by meeting the Special Degree requirements specified in this catalog. The re-

599 RESEARCH IN EDUCATION

Variable credit

Research relating to research requirements for Specialist, Doctor of Philosophy, and Doctor of Education degrees. Approval of the head of the department of the program in which the student is enrolled is required. Maximum of 16 semester hours credit in research may be counted toward residency.

quirements for the College, Community College, and Secondary Teaching Programs are set out elsewhere in this catalog. More detailed information on all these programs is included in the Graduate Handbook of the Department of English.

The following comments are applicable to all of these programs. A minimum of two years of college-level French, German, or another approved language or demonstrated ability therein is required for the Master of Arts degree. Spanish is recommended for students in the Community College Teaching Program. A student may choose one of two methods of completing work toward the master's degree: complete 32 hours of course-work followed by an oral examination; or complete 27 hours of course-work and write a thesis followed by an oral examination.

A student may take a course designated "Studies," "Selected Figures" or "Seminar" more than once, provided the course work does not duplicate subject matter previously covered.

Candidates for graduate degrees in English must have at least 12 hours of 400-level course-work, eight hours of which must be in English and at least 16 total graduate hours in English.

COURSES

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

Intensive study of particular lands, environments, cultures, literatures, and peoples. May be given in cooperation with other departments.

**310 HISTORY AND DEVELOPMENT
OF THE ENGLISH LANGUAGE**

3 sem. hrs.

Development of the English language from the Old English period to the present, with attention to operational structures of contemporary English.

311 INTRODUCTION TO OLD ENGLISH

3 sem. hrs.

The elements of Old English grammar, with selected readings in Old English literature.

**312 BEOWULF AND OTHER OLD
ENGLISH POEMS**

3 sem. hrs.

Beowulf and other Old English poetry in Old English with discussion of forms, types and characteristics. Prerequisite: English 311 or consent of instructor.

**313 MIDDLE ENGLISH LANGUAGE
AND LITERATURE**

3 sem. hrs.

Introduction to middle English language and literature (1100 - 1500) with selected readings in the five major dialects of Middle English, excluding Chaucer.

317 VICTORIAN PROSE

3 sem. hrs.

Major non-fiction prose writers of period 1832-1901, such as Carlyle, Mill, Newman, Ruskin, Arnold, Huxley, and Pater.

320 CHAUCER

3 sem. hrs.

Literary and linguistic study of the major works of Chaucer; text in Middle English.

**322 SELECTED FIGURES IN AMERICAN
LITERATURE**

3 sem. hrs.

Study of important literary figures, genres, or movements. May be repeated if content is different.

324 MILTON

3 sem. hrs.

Major poetry and prose of John Milton; special attention to *Paradise Lost*.

325 ENGLISH DRAMA BEFORE 1642

3 sem. hrs.

English drama, excluding Shakespeare, from its beginning to the closing of the theatres; such authors as Marlow, Jonson, Webster.

**327 RESTORATION AND
EIGHTEENTH-CENTURY DRAMA**

3 sem. hrs.

English drama from 1660 to 1800, including such playwrights as Dryden, Wycherley, Congreve, Goldsmith, Sheridan.

**328 MODERN BRITISH AND AMERICAN
DRAMA**

3 sem. hrs.

Twentieth-century British and American drama and related criticism; such playwrights as Shaw, O'Neill, Williams, Albee, Pinter, Beckett.

336 THE AMERICAN NOVEL

3 sem. hrs.

Historical survey of major American novelists, including such authors as Hawthorne, Melville, Clemens, Crane, Hemingway, Faulkner, Barth.

**341 INTRODUCTION TO DESCRIPTIVE
LINGUISTICS**

3 sem. hrs.

Aims and methods of linguistic science, Nature and functions of language: phonology, morphology, syntax, dialectology. Relationship of language to culture.

**342 INTRODUCTION TO HISTORICAL
LINGUISTICS**

3 sem. hrs.

Historical comparative linguistics concentrating on the Indo-European family. Causes and types of linguistic change. Prerequisite: English 341 or consent of instructor.

347 ADVANCED CREATIVE WRITING

3 sem. hrs.

Workshop format for individual projects, usually the writing of a series of poems or group of short stories.

348 PLAYWRITING

3 sem. hrs.

Also offered as Theatre 348

Playwriting techniques of selected masters with practical application of techniques in writing original plays.

370 STUDIES IN THE HISTORY OF LITERATURE FOR YOUNG PEOPLE

3 sem. hrs.

Advanced critical, chronological examination of literature for children and adolescents from folklore origins to 1900. Prerequisite: English 170 or consent or instructor. May be repeated if content is different.

372 STUDIES IN CONTEMPORARY LITERATURE FOR YOUNG PEOPLE

3 sem. hrs.

A problem-centered course, emphasizing trends and research related to recent literature for children and adolescents. Prerequisite: English 170 or consent of instructor. May be repeated if content is different.

373 VERSE FOR CHILDREN

3 sem. hrs.

Verse for use in kindergarten through grade eight, including various categories, desirable elements, and well-known poets in the field. Prerequisites: English 170 and 271 or 272 or consent of instructor.

375 STUDIES IN LITERATURE FOR ADOLESCENTS

3 sem. hrs.

Advanced critical examination of literature for grades seven through twelve with emphasis on trends and research. May be repeated if content is different.

382 LITERARY CRITICISM

3 sem. hrs.

Historical survey of selected great texts in

literary and critical theory from Plato to Northrop Frye.

386 THE EIGHTEENTH-CENTURY ENGLISH NOVEL

3 sem. hrs.

The English novel from its origins through the eighteenth century, including such writers as Richardson, Fielding, Smollett, Sterne.

387 THE NINETEENTH-CENTURY ENGLISH NOVEL

3 sem. hrs.

The English novel between 1800 and 1900, treating such writers as Austen, Thackeray, Dickens, Eliot, Hardy.

388 THE TWENTIETH-CENTURY ENGLISH NOVEL

3 sem. hrs.

The English novel since 1900, treating such writers as Bennett, Lawrence, Woolf, Joyce, Greene.

390 RECENT RESEARCH IN THE TEACHING OF THE LANGUAGE ARTS

3 sem. hrs.

Critical study of current practice and research in the teaching of the language arts in the elementary school. Prerequisite: English 290 or consent of instructor.

392 MODERN THEORIES OF RHETORIC

3 sem. hrs.

Study of the principles of rhetoric to serve as basis for understanding contemporary rhetorical theories.

395 PROBLEMS IN THE TEACHING OF ENGLISH

3 sem. hrs.

Examination of theory and practice in the teaching of language, literature, and composition at the secondary and community-college levels. Prerequisite: Experience in teaching (student teaching acceptable) or English 296 or English 297.

397 RESEARCH SEMINAR

3 sem. hrs.

Introduction to bibliography, methods of research, critical evaluation of scholarship, and applied literary criticism.

398 MULTI-DISCIPLINARY SEMINAR

3 sem. hrs.

Intensive study in subject matter or matters which crosses disciplinary lines, to be offered by two or more departments.

413 STUDIES IN MEDIEVAL ENGLISH LITERATURE

3 sem. hrs.

Selected linguistic, textual, or literary topics in Middle English (1100-1500). Prerequisite: English 313 or 320 or consent of instructor.

414 STUDIES IN SIXTEENTH-CENTURY ENGLISH LITERATURE

3 sem. hrs.

Several important authors such as More, Sidney, and Spenser, or a particular literary movement or genre.

415 STUDIES IN SEVENTEENTH-CENTURY ENGLISH LITERATURE

3 sem. hrs.

Non-dramatic works of selected seventeenth-century writers such as Bacon, Donne, Jonson, Bunyan, Dryden (excluding Milton).

416 STUDIES IN EIGHTEENTH-CENTURY ENGLISH LITERATURE

3 sem. hrs.

Important authors of the period, such as Pope, Swift, Johnson, or a particular movement or genre.

417 STUDIES IN THE LITERATURE OF THE ROMANTIC PERIOD

3 sem. hrs.

Selected authors, movements, or genres treating such authors as Blake, Wordsworth, Coleridge, Byron, Shelley, Keats.

418 STUDIES IN VICTORIAN LITERATURE

3 sem. hrs.

Authors in the period 1832-1901, such as Browning, Carlyle, Tennyson, Mill, Arnold.

419 STUDIES IN CONTEMPORARY ENGLISH LITERATURE

3 sem. hrs.

Several figures such as Yeats, Joyce, Thomas, Pinter, or a movement or genre.

420 STUDIES IN CHAUCER

3 sem. hrs.

Advanced research and study in the works of Chaucer. Prerequisite: English 320 or equivalent.

422 STUDIES IN SHAKESPEARE

3 sem. hrs.

Sources, textual problems and criticism of selected works of Shakespeare.

424 STUDIES IN MILTON

3 sem. hrs.

Advanced study and research in the life and works of John Milton.

428 STUDIES IN DRAMA

3 sem. hrs.

Advanced study in selected works and topics from English, American, and continental drama.

431 STUDIES IN EARLY AMERICAN LITERATURE

3 sem. hrs.

Figures, movements, or genres from 1607-1830, treating such authors as Taylor, Bradstreet, Paine, Irving.

432 STUDIES IN AMERICAN LITERATURE 1830-1870

3 sem. hrs.

Figures, movements, or genres in the American Romantic Period, treating such authors as Poe, Hawthorne, Emerson, Melville, Whitman.

433 STUDIES IN AMERICAN LITERATURE 1870-1920

3 sem. hrs.

Figures, movements, or genres in the American

Realistic-Naturalistic Period, treating such authors as Dickenson, Clemens, James, Crane, Dreiser.

434 STUDIES IN CONTEMPORARY

AMERICAN LITERATURE

3 sem. hrs.

Figures, movements, or genres in American literature since 1920, treating such authors as Eliot, Fitzgerald, Hemingway, Steinbeck, Faulkner.

440 STUDIES IN ENGLISH LINGUISTICS

3 sem. hrs.

Advanced study and research in various aspects of the English language. Prerequisite: English 341 or equivalent.

450 STUDIES IN ANCIENT LITERATURE

3 sem. hrs.

Selected readings from antiquity, mostly Biblical and classical, with consideration of Eastern literature.

452 STUDIES IN THE RENAISSANCE

3 sem. hrs.

Figures, movements, or genres from the European Renaissance (1300-1650), including such authors as Rabelais, Petrarch, Montaigne, Cervantes.

453 STUDIES IN THE ENLIGHTENMENT

3 sem. hrs.

Figures, movements, or genres from the European Enlightenment (1650-1770), including such authors as Voltaire, Moliere, Racine, Diderot.

454 STUDIES IN EUROPEAN ROMANTICISM

3 sem. hrs.

Figures, movements, or genres of the period 1770-1850 in Europe, including such authors as Goethe, Rousseau, Hugo, Heine.

456 STUDIES IN MODERN WORLD LITERATURE

3 sem. hrs.

Figures, movements, or genres in World Literature from the mid-nineteenth century to the

present, including such authors as Dostoevsky, Tolstoy, Camus, Mishima, Solzhenitsyn.

482 STUDIES IN LITERARY CRITICISM

3 sem. hrs.

Problems or topics in literary criticism and theory, such as Archetypal, Freudian, Historical, etc.

483 STUDIES IN RHETORIC AND ENGLISH PROSE STYLE

3 sem. hrs.

History and Characteristics of English prose style at various stages of its development. Prerequisite: English 241 or 310 or equivalent.

486 STUDIES IN THE ENGLISH NOVEL

3 sem. hrs.

Topics in the development of the English novel, with attention to particular techniques, figures, themes or movements.

487 STUDIES IN THE AMERICAN NOVEL

3 sem. hrs.

Topics in the development of the American novel, with attention to particular techniques, figures, themes or movements.

491 INTERNSHIP IN COLLEGE TEACHING OF ENGLISH

3 sem. hrs.

Supervised teaching at a cooperating community college or university. (Cross-listed with Curriculum and Instruction 491).

492 RECENT RESEARCH IN THE ENGLISH LANGUAGE ARTS

3 sem. hrs.

Advanced study of significant research for elementary-junior high levels, tools and design of empirical research, needed research, student models. Prerequisite: Ability in statistics.

493 TOPICS IN ENGLISH

1-3 sem. hrs.

Advanced study and research in an announced area of language or literature.

496 STUDIES IN BIBLIOGRAPHY

2 sem. hrs.

Printing, bibliographical evidence, relation of manuscript to printed text, and problems of editing. Prerequisite: English 397.

498 INDEPENDENT READING

1-3 sem. hrs.

Intensive study of a topic not currently covered

Foreign Language

Chairperson: Richard O. Whitcomb. Office: Stevenson Hall 425.

Teaching Staff: T. Comfort, A.G. Ferguson, B. Fritzen, W. Fuehrer, H. Hutter, B. Kuhn, J. Laurenti, D. Parent, K. Parker, G. Petrossian, J.A. Rodriguez, P. Tarrant.

The Department of Foreign Languages reserves the right to examine transfer students as to their ability to carry courses on the 300 level.

The department offers work leading to the following degrees: M.A., M.S. in Ed. The master's degree program is flexible, permitting specialization in either French or Spanish. Courses are approved by major adviser and chairperson of the Department of Foreign Languages. A thesis may be required at the discretion of the chairperson of the department.

GENERAL COURSES

300 RESEARCH IN FOREIGN LANGUAGES

1-3 sem. hrs.

Supervised work in a foreign language, in comparative language studies or in educational materials for a foreign language laboratory. Assignments will depend on the preparation and interest of the student. Consent of department chairperson.

491 INTERSHIP IN COLLEGE TEACHING IN THE FOREIGN LANGUAGES

1-3 sem. hrs.

Credit for this course is given in Curriculum and Instruction. (See Curriculum and Instruction 491).

in existing courses. Prerequisite: Approval of sponsoring faculty member and of Department Chairperson.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

Preparation of thesis under faculty direction, according to Graduate School requirements.

497 RESEARCH SEMINAR

1-6 sem. hrs.

Introduction to bibliography, methods of scholarly research and the critical evaluation of research in the field. Must be taken by first year graduate students unless the department requires Curriculum and Instruction 475. May be repeated by more advanced students who desire direction and constructive criticism as they pursue research problems.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

French

301 FRENCH ROMANTICISM

3 sem. hrs.

Reading of poetry, novels, plays, criticism, stories and history.

302 FRENCH CLASSICISM

3 sem. hrs.

Reading of plays by Corneille, Racine and Moliere, and of selections from other seventeenth century writers.

309 FRENCH PHONETICS

2 sem. hrs.

A scientific approach to French pronunciation. Correct formation of French sounds; practical application of the theory of phonetics to teaching.

316 FRENCH LITERATURE OF THE SIXTEENTH CENTURY

3 sem. hrs.

Analysis of the Renaissance as it expressed itself in the leading writers of France in the 16th century.

318 MOLIERE

3 sem. hrs.

Major comedies of Moliere.

322 FRENCH LITERATURE OF THE MIDDLE AGES (formerly LEMOYEN AGE)

3 sem. hrs.

A study of medieval French literature in modern French translation.

332 FRENCH LYRIC POETRY

2 sem. hrs.

Reading of French lyrics from the 16th century to the present; study of the schools of poetry; explication de texte; oral reading.

385 SELECTED TOPICS IN FRENCH LITERATURE

3 sem. hrs.

Intensive study of a genre, group of authors or a single major writer in French Literature. This study varies each semester. May be repeated with different content.

401 TWENTIETH CENTURY AUTHORS

1900-1945

3 sem. hrs.

Trends in contemporary prose, with readings from the novel and the drama.

402 STYLISTICS

3 sem. hrs.

Intensive, advanced grammar and composition, including analysis of style.

403 TWENTIETH CENTURY AUTHORS SINCE 1945

3 sem. hrs.

A study in depth of the fiction, drama and poetry in French literature since World War II.

404 BALZAC

3 sem. hrs.

Balzac's work with emphasis on his novels as a mirror of his time and their influence on the development of the novel as a literary form.

416 MONTAIGNE

3 sem. hrs.

A detailed study of the life and works of Montaigne.

418 LA FONTAINE

3 sem. hrs.

A detailed study of the life and works of LaFontaine.

420 THE AGE OF ENLIGHTENMENT

3 sem. hrs.

Intensive and critical study in French of the major authors and work of the eighteenth century.

421 HISTORY OF FRENCH LANGUAGE

3 sem. hrs.

Evolution of the language from its origins to the present day.

430 REALISM AND NATURALISM

3 sem. hrs.

A detailed analysis of French literature of the late nineteenth century, including the works of Flaubert, Zola, and Baudelaire.

431 LE SYMBOLISME ET LE PARNASSE

3 sem. hrs.

A detailed study of French poetry in the late nineteenth century.

German

302 GOETHE

3 sem. hrs.

Reading and discussion of a number of major

works, with emphasis on the drama. Prerequisite: Two courses beyond German 116.

303 SCHILLER

3 sem. hrs.

Reading and discussion on a number of major works, with emphasis on the drama. Prerequisite: Two courses beyond German 116.

309 GERMAN PHONETICS

2 sem. hrs.

A scientific approach to German pronunciation; correct formation of German sounds; practical application of the theory of phonetics to its teaching. Prerequisites: Two courses in German literature.

313 ADVANCED GERMAN COMPOSITION AND CONVERSATION

2 sem. hrs.

Free discussion of topics of contemporary interest; assignment of oral and written themes based on class discussions. Prerequisites: German 213 or consent of department chairperson.

318 GOETHE'S FAUST

3 sem. hrs.

A critical study of Parts I and II of Faust as literature and as an expression of Goethe's philosophy. Lectures, assigned readings and reports. Prerequisites: Two courses in German beyond 116.

332 GERMAN LYRIC POETRY

2 sem. hrs.

Reading and interpretation of German lyric poetry from 800 A.D. to the present.

385 SELECTED STUDIES IN GERMAN LITERATURE

3 sem. hrs.

Intensive study of a genre, group of authors or a single major writer in German Literature. The field of study will vary each semester according to the interests and needs of students and the availability of instructors. Prerequisite: Two courses in German literature. Provided different material is covered, the course may be taken for credit more than once.

Latin

315 HORACE: ODES AND EPODES

3 sem. hrs.

Translation, interpretation and metrical reading of Horace's lyric poetry. Critical study of the characteristic features of his style. Life in the Augustan Age and Horace's philosophy of life.

316 ROMAN SATIRE

3 sem. hrs.

The history and development of satire as a literary genre; reading of representative selections from Ennius, Lucilius, Horace, Persius, and Juvenal; a consideration of their influence upon later literature.

318 TACITUS

2 sem. hrs.

Agricola and Germania. An introduction to the prose of the Silver period.

319 SELECTIONS FROM THE LETTERS OF CICERO

2 sem. hrs.

Translation of some of the most interesting and important letters of Cicero as a commentary upon the manners, history and politics of the period of the Republic.

320 SELECTIONS FROM THE LETTERS OF PLINY

2 sem. hrs.

Readings from the correspondence of Pliny selected for their importance as a commentary on Roman life and manners during the period of the Empire. Study of the letters both as human documents and as literary compositions.

385 SELECTED TOPICS IN LATIN LITERATURE

3 sem. hrs.

Intensive study of a genre, group of authors or a single major writer in Latin literature. The field of study will vary each semester according to the interests and needs of students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once.

Spanish

304 LA CIVILIZACION MEXICANA

(Spanish)

2 sem. hrs.

A study of the formation of the Mexican nation. A consideration of the development of attitudes and traditions.

309 SPANISH PHONETICS

3 sem. hrs.

Learning and using correct Spanish pronunciation, stress, and intonation.

310 SPANISH SYNTAX

3 sem. hrs.

A systematic and thorough study of the fundamental points of Spanish grammar and composition.

320 PROBLEMS IN THE TEACHING OF SPANISH

2 sem. hrs.

Methods of teaching Spanish in the secondary school. Special emphasis is given to audiolingual techniques.

331 and 332 SPANISH-AMERICAN LITERATURE

3 sem. hrs.

From the colonial period through realism, and from modernism to the present.

335 MEXICAN LITERATURE (Spanish)

2 sem. hrs.

A survey of Mexican literature and its literary background from its beginnings to the present.

372 SPANISH DRAMA OF THE GOLDEN AGE

3 sem. hrs.

Class and collateral reading of selected plays from the great dramatists of Spain's Golden Age.

385 SELECTED TOPICS IN SPANISH LITERATURE

3 sem. hrs.

Intensive study of a genre, movement, author or

work. This study varies each semester. May be repeated with different content.

411 SPANISH-AMERICAN NOVEL

3 sem. hrs.

The Spanish-American Novel of the nineteenth and twentieth centuries with emphasis on the most characteristic author of each period.

421 HISTORY OF THE SPANISH LANGUAGE

3 sem. hrs.

The historical development of the Spanish language with particular attention to its phonology and morphology.

423 INTRODUCTION TO ROMANCE LINGUISTICS

3 sem. hrs.

The historical development of the major Romance languages with particular attention to their structure.

435 LEADERS IN SPANISH-AMERICAN THOUGHT

3 sem. hrs.

The writers of prose—exclusive of fiction—who have shaped or influenced thought and action in Spanish America during the past two centuries from the beginning of the movement for independence to the present day.

441 LA POESIA HISPANOAMERICANA (Spanish-American Poetry)

3 sem. hrs.

Study of the main trends of Spanish-American poetry, starting with Sor Juana Ines de la Cruz in the 17th century.

463 SEMINAR IN SPANISH LITERATURE BEFORE 1500

3 sem. hrs.

Intensive and critical study of a major work of the period. The work studied will be varied in successive semesters.

464 SEMINAR IN GOLDEN AGE PROSE

3 sem. hrs.

A study of the important works of the Renaissance and Baroque periods: the novel in its various forms, the short story, religious literature, moral and historical writings.

466 THE PICARESQUE NOVEL

3 sem. hrs.

A study of the Picaresque Novel and its influence on modern world literature.

467 SEMINAR IN GOLDEN AGE POETRY

3 sem. hrs.

Intensive and critical study of Spanish poetry from Garcilaso to Quevedo, with particular attention to Italian influences, to mysticism, to the aesthetics of the Renaissance and Baroque periods, and to the traditional forms.

468 LOPE DE VEGA AND HIS PREDECESSORS

3 sem. hrs.

A study of the creation of national theatre by Lope de Vega and his predecessors, with attention to the development of preceding forms of religious and secular drama, Italian influences, and the crystallization of the spirit of the Spanish Counter-Reformation. Prerequisite: Spanish Drama of the Golden Age 372.

469 THE THEATRE OF CALDERON AND HIS CONTEMPORARIES

3 sem. hrs.

Emphasis will be placed both on Calderon's late dramas and upon a critical analysis of the drama of his contemporaries. Questions to be considered: national characteristics, intellectual and religious implication, the role of the individual, problems of style and ideological interpretation. Prerequisite: Spanish Drama of the Golden Age 372.

470 DON QUIXOTE

3 sem. hrs.

Reading of the Quixote with special attention to problems of interpretation and literary criticism.

484 SEMINAR IN CONTEMPORARY SPANISH LITERATURE

A study of the twentieth century novel, essay, poetry, or drama. The genre will be varied in successive semesters.

485 SELECTED STUDIES IN LINGUISTICS

3 sem. hrs.

Intensive study of a linguistic problem, work, or technique. Content may vary according to interest and needs of students. May be repeated with different content.

French

(See Foreign Languages)

Geography

Chairperson of the Department: John Trotter. Office: Schroeder Hall 406.

Teaching Staff: W. Calef, R. Hart, P. Mattingly, E. J. Miller, J. Patterson, E. Schmidt, T. Searight, S. Shuman, J. Trotter.

The department offers work leading to the following degrees: M.A., M.S., M.S. in Ed. University requirements for master's degrees are described elsewhere in this catalog.

COURSES

300 CARTOGRAPHY AND GRAPHICS

3 sem. hrs.

Graphic representation of statistical data, including compilation and preparation of various types of maps and graphs. Map projections, scales, symbolisms, dot maps, and their use.

305 AERIAL PHOTOGRAPH INTERPRETATION

3 sem. hrs.

An introduction to the basic principles of photogrammetry and the techniques and applications of aerial photograph interpretation, emphasizing the functional relationships of features located upon the earth's surface.

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off the campus. The areas to be studied, participating departments, and credit hours available in the several departments will be announced each time the course is offered. Prerequisite: Consent of instructor.

308 QUANTITATIVE METHODS IN GEOGRAPHY

3 sem. hrs.

Use and interpretation of basic statistical techniques in geographical problems. Measures of central tendency and dispersion, frequency curves, sampling, sample analysis and correlation are applied to the spatial aspects of phenomena.

310 TECHNIQUES OF FIELD WORK

3 sem. hrs.

Techniques of mapping and interpretation of the phenomena of the natural and cultural landscapes. Most of the time in the field is spent in doing original study and mapping. Field trips are required.

315 METHODS AND CONCEPTS IN AMERICAN GEOGRAPHY

2 sem. hrs.

A survey of selected professional publications designed to acquaint the student with the development of basic concepts and methods in American geography. Enables the student to evaluate geographic viewpoints and approaches in research and teaching.

320 RURAL LAND USE AND AGRICULTURAL GEOGRAPHY

3 sem. hrs.

Principles of agricultural geography, and related land use; types of agriculture and production units, agricultural regions, and distributional patterns of chief crops and livestock. Includes study of factors and decisions influencing the location of agricultural activities. Prerequisite: Economic Geography 150 or consent of instructor.

325 WORLD POPULATION AND RESOURCES

3 sem. hrs.

Population growth and resource distribution and their impact on national policy, levels of living, education, and food supply. Prerequisite: Geography 150 or 205, or consent of instructor.

330 GEOGRAPHY OF TRANSPORTATION

3 sem. hrs.

A geographic analysis of systems of spatial interaction involving route layout and traffic flow by the principal modes of transportation. Includes the import and transportation on the location of industry and on regional development. Prerequisite: Geography 150 or consent of instructor.

335 INDUSTRIAL GEOGRAPHY

3 sem. hrs.

Factors influencing the location and structure of American manufacturing industries. Prerequisite: Geography 150 or consent of instructor.

336 URBAN GEOGRAPHY

3 sem. hrs.

Internal morphology, external relationships, and other spatial aspects of cities.

337 HISTORICAL GEOGRAPHY OF THE UNITED STATES

3 sem. hrs.

The study of the geography of the exploration and initial settlement of the United States. Includes the development of distinctive regional patterns.

338 CULTURAL GEOGRAPHY

3 sem. hrs.

The study of cultural processes such as migration, diffusions, and settlement whereby man, the organizer of space, leaves his imprint on the earth's surface. Prerequisite: Geography 135 or consent of the instructor.

340 PROBLEMS IN CLIMATOLOGY

3 sem. hrs.

Investigation of specific problems in

climatology. Prerequisite: Climate 200 or consent of instructor.

345 PROBLEMS IN CONSERVATION AND OUTDOOR RECREATION **3 sem. hrs.**

Investigation of specific problems in conservation and resource use including outdoor recreational resources. These problems are explored in their complex national, regional, and local contexts. Prerequisite: Geography 205 or consent of instructor.

380 GEOMORPHOLOGY **3 sem. hrs.**

Detailed study of the origin, classification, description and interpretation of land forms. Prerequisite: Physical Geology 175 or consent of instructor.

401 ADVANCED CARTOGRAPHY **3 sem. hrs.**

Techniques of cartographic presentation. Compilation and construction of maps and diagrams for research and teaching. Prerequisite: Cartography and Graphics 300.

412 ADVANCED CULTURAL GEOGRAPHY **3 sem. hrs.**

The forms and processes of man's occupancy and use of his habitat within cultural regions. Examples from North America and Western Europe are presented in depth. Prerequisite: Geography 338 or consent of instructor.

415 ADVANCED URBAN GEOGRAPHY **3 sem. hrs.**

Detailed analysis of the spatial aspects of urban developments. Focus on urban morphology, and external relationships. Prerequisite: Geography 336 or consent of instructor.

420 PHYSIOGRAPHY OF NORTH AMERICA **3 sem. hrs.**

Physiographic regions of North America. Development of surface features of each area as a background for present geographic patterns of that region. Field trip required. Geology 175 or consent of instructor.

430 GEOGRAPHY OF LATIN AMERICA **3 sem. hrs.**

Intensive study of selected areas with emphasis upon settlement patterns, resources and interregional relations.

435 GEOGRAPHY OF WESTERN EUROPE **3 sem. hrs.**

Regional and economic development of the British Isles and continental Europe. Intensive investigations of resource, industrial, agricultural, and population patterns.

440 MEDITERRANEAN LANDS **3 sem. hrs.**

Regional survey of the physical, cultural, and economic aspects of southern Europe, the Levant, and North Africa.

445 GEOGRAPHY OF THE MIDDLE EAST **3 sem. hrs.**

Survey of the lands and peoples of southwestern Asia. Resource and population patterns of regional and political units.

450 GEOGRAPHY OF THE FAR EAST **3 sem. hrs.**

Lands and peoples of eastern Asia, with emphasis on China and Japan. International, national, and regional characteristics and problems.

470 SEMINAR IN REGIONAL GEOGRAPHY **3 sem. hrs.**

Prerequisite: Advanced standing in geography or consent of instructor.

471 SEMINAR ECONOMIC-RESOURCE GEOGRAPHY **3 sem. hrs.**

Prerequisites: Economic Geography 150 and/or Conservation of Natural Resources 205 or consent of instructor.

472 SEMINAR IN PHYSICAL GEOGRAPHY **3 sem. hrs.**

Prerequisite: Consent of instructor.

473 SEMINAR IN HUMAN GEOGRAPHY

3 sem. hrs.

Prerequisite: Consent of instructor.

491 INTERNSHIP IN COLLEGE TEACHING IN GEOGRAPHY

3 sem. hrs.

Credit for this course is given in Curriculum and Instruction (See Curriculum and Instruction 491).

497 RESEARCH SEMINAR

1-6 sem. hrs.

Introduction to bibliography, methods of scholarly research and the critical evaluation of research in the field. Must be taken by first year graduate students unless the department requires Curriculum and Instruction 475. May be repeated by more advanced students who desire direction and constructive criticism as they pursue research problems.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

AUXILIARY GEOLOGY COURSES

(Not applicable to a graduate degree program in geography).

375 ECONOMIC GEOLOGY

3 sem. hrs.

Earth materials of economic importance. Characteristics and uses of common metallic and non-metallic minerals and rocks. Prerequisite: Geology 175 or consent of instructor.

382 GLACIAL AND QUATERNARY GEOLOGY (formerly GEOLOGY 425)

3 sem. hrs.

Development of glaciers, glacial movements,

deposits and landforms as background for discussion of present landscapes.

385 INVERTEBRATE PALEONTOLOGY

4 sem. hrs.

Concepts of evolution, taxonomy, and paleontological species; invertebrate phyla, with emphasis on groups with paleocologic and stratigraphic significance. Three hours of lecture, three hours of laboratory. Prerequisites: Historical Geology 180 or Life of the Geologic Past 275 and Biological Sciences 191 or consent of instructor. Field trip is required.

391 OPTICAL MINERALOGY AND PETROGRAPHY

4 sem. hrs.

Advanced study of minerals and rocks through the use of the petrographic microscope. Optical theory, mineral identification, refractive-index oil and rock thin-section techniques, rock identification and description are covered. Lecture and Laboratory. Prerequisite: Geology 280 and 285.

Health, Physical Education and Recreation

Acting Chairperson: Phebe M. Scott. Office: Horton Fieldhouse 203A.

Teaching Staff: B. Bass, J. Collie, V. Crafts, P. Dohrmann, C.B. Eichstaedt, C. Imel, M. Jones, B. Keough, R. Koehler, R. Liverman, G.L. Mabry, R. McAdam, R. Metcalf, W. Miller, A. Nolte, J. Scott, P. Scott, G. Smith, K. Strand, T-K Tchong, W. Truex, M. Weisbecker, D. Workman.

The department offers work leading to the following degrees: M.A., M.S., M.S. in Ed. Students seeking an Ed.D. in Educational Administration may, with approval, have a concentration of credit hours in the Department of Health, Physical Education, Recreation and Dance.

Students working on a master's degree must complete at least 18 hours in Health, Physical Education, Recreation and Dance, excluding thesis credit. Programs must include from this department as follows: For a Physical Education concentration—

497 and 442; for a Dance concentration—497, 460 and 469; for a Recreation concentration—497 and 442 or 475. All students have the option of completing a thesis, including creative ones, or pursuing the non-thesis comprehensive examination option. Students who select the comprehensive examination must include in their programs at least two semester hours of credit in HPER 400, Independent Study. It should be noted that approval of the department graduate programs director is required for HPER 400, Independent Study, and for HPER 489, Advanced Study; these two courses are classified as "General Courses" and are described elsewhere in this bulletin.

University requirements for master's degrees are listed elsewhere in this catalog.

COURSES

304 TEACHING OF SPORTS

3 sem. hrs.

Optimal learning in human movement: content, teacher behavior, situational conditions, analysis of sports, instructional approaches, application of research.

321 CURRENT TRENDS IN ELEMENTARY PHYSICAL EDUCATION

3 sem. hrs.

Conceptual approach to teaching elementary physical education; integration of physical education with classroom subjects: evaluation of children's performance. Prerequisite: HPER 221 or 222.

340 HISTORY OF PHYSICAL EDUCATION

3 sem. hrs.

Relationship, from ancient to contemporary times, of physical education to economic, political, social, educational and religious factors.

341 ORGANIZATION AND ADMINISTRATION OF HEALTH AND PHYSICAL EDUCATION

3 sem. hrs.

Administration and program development of health education and physical education in elementary and secondary schools and community colleges.

347 TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION

3 sem. hrs.

Analysis of motor performance, using objective tests, subjective ratings, and achievement tests. Construction and evaluation of knowledge tests. Use of statistical concepts for interpreting test scores.

349 APPLIED MOTOR LEARNING

3 sem. hrs.

Perceptual-motor development and performance. Application of research, learning theories and assessment tools; maturational, perceptual and performance factors.

351 EXERCISE PHYSIOLOGY

3 sem. hrs.

Utilization of human physiology in teaching physical education. Effects of exercise on body systems and physical efficiency tests and studies. Prerequisite: HPER 182.

360 THE TEACHING OF DANCE

2 sem. hrs.

Teaching methods in modern and folk dance forms; selection, progression, and development of dance materials in the secondary school.

361 HISTORY AND PHILOSOPHY OF DANCE I

3 sem. hrs.

History, philosophy, and development of dance as a social and cultural medium from primitive times through seventeenth century.

362 HISTORY AND PHILOSOPHY OF DANCE II

3 sem. hrs.

History, philosophy, and development of dance from the 18th century to the present. Approaches, styles, and contributions of leading dance personalities.

363 PRINCIPLES OF DANCE PRODUCTION

3 sem. hrs.

Principles of costuming, lighting, accompaniment, and related aspects in the production of dance performances.

365 TEACHING OF FOLK FORMS OF DANCE
2 sem. hrs.

Methods of teaching folk and social dance forms in the secondary school, college, and recreational situation. Prerequisite: Previous experience in the social forms of dance (social, square, folk) or consent of instructor.

367 PROBLEMS OF DANCE
2 sem. hrs.

Current problems in teaching and administration of dance curricula; supervision of recreational and performing dance groups.

**368 DANCE COMPOSITION—
EXPERIMENTAL APPROACHES**
(formerly
PRACTICUM IN COMPOSITION)
2 sem. hrs.

Progressive experiences in individual and group composition; in design, rhythm and dynamics, in various approaches to choreography. Prerequisite: Previous experience in modern dance.

369 DANCE FOR CHILDREN
2 sem. hrs.

Methods and materials in traditional and creative activities; movement explorations for tumbling and gymnastics; interrelationships of dance with other arts. Prerequisite: HPER 162, 221 or 222.

**370 RECREATION FOR SPECIAL
POPULATIONS**
3 sem. hrs.

Materials for leadership techniques for conducting recreation for special groups, including mental and physically handicapped, aged, juvenile delinquents, armed forces, prisons, and hospitals.

**372 CAMP EXPERIENCE WITH
PHYSICALLY HANDICAPPED**
3 sem. hrs.

Counseling experience in a summer camp for physically handicapped children. Conferences on planning of daily activities, equipment and general program. Prerequisites: Consent of chairperson of SED and chairperson of HPER. May be repeated.

**373 WORKSHOP IN RECREATION AND
CAMPING**
3 sem. hrs.

Preparation of materials in crafts, music, story telling, dramatics, games and sports, with cooperative work among various departments and organizations.

374 OUTDOOR RECREATION-EDUCATION
3 sem. hrs.

Recreational use of parks and forests. Principles and policies underlying school related programs and materials in outdoor education.

**382 SENSORY MOTOR EDUCATION OF
TRAINABLE MENTALLY HAN-
DICAPPED**
3 sem. hrs.

Physical education activities appropriate for the trainable mentally handicapped child. Related appropriate teaching techniques are emphasized.

383 ADAPTED PHYSICAL EDUCATION
(formerly **BODY MECHANICS AND
CORRECTIVE PROCEDURES**)
2 sem. hrs.

Methods, materials, and activities appropriate for adapted physical education programs in elementary and secondary schools. Prerequisite: HPER 282.

**384 PREVENTION AND INITIAL CARE OF
INJURIES**
3 sem. hrs.

Responsibilities, qualifications and limitations of a trainer-coach, conditioning as a preventive measure and selected injuries, taping and treatment modalities. Prerequisite: HPER 182 or consent of instructor.

**385 PHYSICAL DEFECTS-SURVEY AND
REHABILITATION**
3 sem. hrs.

Identification and treatment of physical defects of handicapped children; special services, equipment and procedures for school programs. Prerequisite: HPER 282. Also offered as BSC 385. Lecture and laboratory.

386 PHYSICAL EDUCATION AND RECREATION FOR HANDICAPPED CHILDREN

2 sem. hrs.

Materials and methods for planning and conducting programs for handicapped children and adolescents. Prerequisites: HPER 383 or PSY 346 and two to three hours from HPER 221, 222, 224, or 321. For teachers of HPER AND EXCEPTIONAL CHILDREN.

387 TREATMENT OF ATHLETIC INJURIES

3 sem. hrs.

Selected prevention and care items; concentrated work on therapeutic modalities, ergogenic aids and reconditioning exercises. Prerequisite: HPER 384 or consent of instructor.

403 PROBLEMS IN ADMINISTRATION OF SPORTS

3 sem. hrs.

Critical analysis of the current problems that confront the director of physical education in the organization and administration of sports activities with special reference to national, state, and local control.

424 SUPERVISION OF PHYSICAL EDUCATION

2 sem. hrs.

Techniques of supervision of physical education in elementary and secondary schools; in-service training of the classroom and physical education teacher; relationships with teachers, administrators, and community.

442 PHILOSOPHY OF PHYSICAL EDUCATION

3 sem. hrs.

An examination of the philosophical bases of physical education in historical perspective and in the American culture with implications for purposes, programs, and methodology.

443 PROBLEMS IN HEALTH, PHYSICAL EDUCATION, AND RECREATION

3 sem. hrs.

Consideration of current problems in these fields

as they affect the teacher of physical education; guidance in individual and group solution of selected professional problems.

447 EVALUATION IN PHYSICAL EDUCATION

3 sem. hrs.

Methods for testing and evaluating in the school situation, interpreting data, and understanding statistics in research. Prerequisite: HPER 347 or equivalent.

448 CURRENT RESEARCH IN HEALTH, PHYSICAL EDUCATION AND RECREATION

2 sem. hrs.

Review and critical analysis of selected research studies. Prerequisite: Introduction to Research 497.

460 SEMINAR IN DANCE

2 sem. hrs.

Student participation in lectures, reports, demonstrations, and discussions to gain fluency in oral and written presentation while criticizing or defending concepts related to dance education; critical evaluation of pertinent research and thesis plans; reaction to points of view expressed by occasional guest lecturers.

469 MOVEMENT PHENOMENOLOGY AND PERCEPTION

3 sem. hrs.

The phenomenon of human movement; perception-movement relationships and communication; theories of motion and muscular movement, movement behavior. Prerequisite: HPER 282.

472 CAMPING ADMINISTRATION

3 sem. hrs.

A comprehensive study of the various principles and techniques involved in the successful administration of modern-day organization and private camps, from the perspective of the camp director.

475 ORGANIZATION AND ADMINISTRATION OF RECREATION

3 sem. hrs.

Factors concerning the organization and administration of a recreation program; course designed to meet the needs of the administrators of town, community, or school recreational programs.

481 WORK METABOLISM

3 sem. hrs.

An investigation of the metabolic changes that occur during exercise stress in physical education and sport activities. Prerequisite: HPER 351 or permission of the instructor.

482 MECHANICAL ANALYSIS OF MOVEMENT

2 sem. hrs.

Principles of physics applied to body movement; analysis of body positions and modes of locomotion; muscular and mechanical analysis of selected movement skills.

483 ADVANCED CORRECTIVE PROCEDURES

2 sem. hrs.

Selected screening and evaluative techniques; applications of recent advances in exercise physiology; individualization of health exercise, and rest programs; administration of school and college adapted and corrective program; school-community liaison. Prerequisite: HPER 383.

491 INTERNSHIP IN COLLEGE TRAINING IN HEALTH AND PHYSICAL EDUCATION

3 sem. hrs.

Credit in this course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

497 INTRODUCTION TO RESEARCH

3 sem. hrs.

Introduction to research methodology, including use of the library, problem selection, differences in research techniques, and application of statistical models to research designs.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

History

Chairperson of the Department: Mark Plummer. Office: Schroeder Hall 334.

Teaching Staff: R. Austensen, R. Champagne, I. Cohen, D. Davis, C. Ekberg, J. Freed, J. Grabill, C. Gray, W. Haddad, M.P. Holsinger, N. Holt, G. Homan, F. Kohlmeier, D. MacDonald, M. Plummer, J. Rayfield, E. Reitan, T. Sands, E. Schapsmeier, K. Sessions, L.M. Simms, Jr., L. Walker, H. Wray, W. Wyman.

The department offers work leading to the following degrees: M.A., M.S., M.S. in Ed., D.A. University requirements for these degrees are listed elsewhere in this catalog. Departmental requirements are as follows:

MASTER'S DEGREE IN HISTORY

The master's degree in History requires 32 semester hours of graduate credit in History and such related subjects as the graduate student adviser recommends. A student who chooses to emphasize U.S. History must earn at least five semester hours of graduate credit in History other than U.S. History. A student who chooses to emphasize Western Civilization or the Non-Western World must earn at least five semester hours of graduate credit in U.S. History. At least 16 semester hours of credit must be at the 400 level. History 497, Research Seminar is required of all students, and if possible should be taken in the first semester of graduate study.

Each student may choose between (1) writing a master's thesis and (2) taking a comprehensive examination. A student may receive up to six semester

hours of credit for a master's thesis. Preparation of a master's thesis is of advantage to students who expect to work toward a doctor's degree and for this reason students who plan to enter a doctoral program are encouraged to write a thesis. The student who chooses the comprehensive examination will take the examination when completing the required 32 semester hours of course work. The student is also required to submit two seminar papers for inspection at the time of the comprehensive examination.

DOCTOR OF ARTS

The Doctor of Arts in History is offered to persons seeking advanced training for teaching and curriculum leadership in colleges, community colleges, or high schools. Entry into the program requires a master's degree and successful teaching experience. Each doctoral student must complete, (a) a field in education (History Education, 8 semester hours, and Higher Education, 6 semester hours), (b) a field in history (16 semester hours), and (c) two cognate concentrations (Historical Foundations concentration, 8 semester hours, and Related Area, 8 semester hours). Included in the above are certain special courses required of all Doctor of Arts candidates: Interpretive problems in Teaching of History, Philosophy of History and Historiography, Seminar and Practicum in the Teaching of History, Research-Internship in Teaching of History, Philosophy of History and Historiography, Seminar and Practicum in the Teaching of History, Research-Internship in Teaching of History, and Higher Education Studies. A comprehensive oral and written examination follows completion of all course work. The final requirement of the program is a dissertation (14 semester hours) which may conform to either of the following types: **Type A**, primarily concerned with curriculum or new course development in history; **Type B**, primarily concerned with investigation of an historical topic, with reference to teaching. The normal residence requirement is one year, but commuter students who make continuing progress in the program may have the residence requirement reduced to one semester. For additional information write to the Chairperson, Department of History, Illinois State University.

COURSES

306 REGIONAL AND AREA STUDIES

3-9 sem. hrs.

Consent of instructor. Usually given cooperatively with other departments. Intensive study of particular lands, environments, cultures, and peoples.

310 SEVENTEENTH CENTURY AMERICA

3 sem. hrs.

Establishment and development of the American Colonies from Jamestown to the end of the 17th Century. Special emphasis is given to Puritan New England.

311 AGE OF THE AMERICAN REVOLUTION

3 sem. hrs.

The emergence of the United States as an independent nation from 1763 to the Constitutional Convention in 1787.

317 AMERICAN CULTURAL EXPANSION AND DIPLOMACY 3 sem. hrs.

Worldwide expansion of American diplomatic, economic, cultural, and religious influence in the nineteenth and twentieth centuries.

320 LINCOLN: THE MAN AND HIS TIMES

3 sem. hrs.

Attention directed especially toward the work of Lincoln in Illinois, his leadership during the Civil War, and his relationships with men and events of his time.

321 GREAT FIGURES OF THE UNITED STATES

3 sem. hrs.

Personalities selected from American History. Emphasis on the contributions and lasting influence of significant individuals in American History.

322 AMERICAN URBAN HISTORY

3 sem. hrs.

Survey of the history of the American city from 1820 to the present.

323 AMERICAN CULTURAL AND INTELLECTUAL HISTORY I
3 sem. hrs.

American progress in the fine arts, philosophy, literature and science from Puritan times to 1860.

324 AMERICAN CULTURAL AND INTELLECTUAL HISTORY II
3 sem. hrs.

The impact of naturalism, industrialization, secularization, and urbanization upon American culture since 1860.

325 PROBLEMS IN TWENTIETH CENTURY UNITED STATES CONSTITUTIONAL HISTORY
3 sem. hrs.

An examination of major problems in American constitutional history since the Progressive Era: civil rights, freedom of speech and religion, federal-state relations.

326 CASES IN BUSINESS HISTORY
3 sem. hrs.

Study of mergers, business ethics, innovations, relations with labor and government, marketing, and financing, based on the historical experience of individual companies and business leaders.

327 AMERICAN LABOR HISTORY
3 sem. hrs.

The Industrial Revolution's impact upon workers, with emphasis on the responses through unions and politics and on the role of government.

341 EUROPEAN INTELLECTUAL HISTORY TO 1600
3 sem. hrs.

The study of the ideas of the ancient world, Middle Ages, Renaissance Reformation, examined in a social, political and economic context.

342 EUROPEAN INTELLECTUAL HISTORY SINCE 1600
3 sem. hrs.

A study of the ideas of the scientific revolution, enlightenment, nineteenth century and twentieth

century examined in a social, political, and economic context.

343 MODERN EUROPEAN DIPLOMATIC HISTORY I, 1789-1890
3 sem. hrs.

The diplomatic history of Europe from the French Revolution to the fall of Bismarck.

344 MODERN EUROPEAN DIPLOMATIC HISTORY II, 1890 TO PRESENT
3 sem. hrs.

The diplomatic history of Europe from the fall of Bismarck in 1890 to the present.

345 FRENCH REVOLUTION AND NAPOLEONIC ERA, 1789-1815
3 sem. hrs.

Society, culture, and government under the monarchy; destruction of the old order; rise and fall of Napoleonic France; struggle for world power.

352 THE HELLENISTIC WORLD
3 sem. hrs.

A comprehensive study of the world bequeathed by Alexander the Great from his death in 323 B.C. to the founding of the Roman Empire.

360 TUDOR-STUART ENGLAND, 1485-1689
3 sem. hrs.

General survey of English history from the beginning of the Tudor dynasty to the Revolution of 1688-89.

361 EIGHTEENTH-CENTURY BRITAIN 1689-1815
3 sem. hrs.

Britain from the Revolution of 1688-89 through the early Industrial Revolution and Napoleonic wars.

362 MODERN BRITAIN, 1815 TO THE PRESENT
3 sem. hrs.

A general survey of British history in the nineteenth and twentieth centuries.

365 NAZI GERMANY 1933-1945

3 sem. hrs.

The origins and nature of Nazi totalitarianism.

366 SOVIET RUSSIA, 1917 TO THE PRESENT

3 sem. hrs.

An evaluation of the origins and rise of Bolshevik power, concentrating on those economic, cultural and social developments leading to great power status.

371 MODERN LATIN AMERICA

3 sem. hrs.

The history of the Latin American countries in the last 100 years with emphasis on the twentieth century.

373 HISTORY OF MODERN CHINA

3 sem. hrs.

Concentrates on the Western and Chinese collision since the 1800's and the responses of traditional, national, and contemporary China to modernization.

375 HISTORY OF MODERN JAPAN

3 sem. hrs.

Concentrates on Japan's modernization, goals of Meiji leaders, contradictory tendencies of pre-war Japan, and contemporary Japan.

390 SOCIAL STUDIES TEACHING METHODOLOGY

3 sem. hrs.

Designed for prospective history/social science teachers. Includes examination of social studies project materials and ways of utilizing instructional models.

401 SEMINAR IN AMERICAN HISTORY

4 sem. hrs.

402 SEMINAR IN EUROPEAN HISTORY

4 sem. hrs.

403 SEMINAR IN ASIAN HISTORY

3 sem. hrs.

411 SEMINAR: EIGHTEENTH CENTURY AMERICA

4 sem. hrs.

412 SEMINAR: THE AGE OF JACKSON

4 sem. hrs.

413 SEMINAR: THE COMING OF THE CIVIL WAR

4 sem. hrs.

414 SEMINAR: CIVIL WAR AND RECONSTRUCTION

4 sem. hrs.

416 SEMINAR: PROGRESSIVISM

4 sem. hrs.

417 SEMINAR: TWENTIETH CENTURY AMERICA

4 sem. hrs.

422 HISTORY OF AMERICAN AGRICULTURE

4 sem. hrs.

423 SEMINAR: AMERICAN ECONOMIC HISTORY

4 sem. hrs.

424 SEMINAR: AMERICAN CULTURAL AND INTELLECTUAL HISTORY

4 sem. hrs.

426 SEMINAR: AMERICAN CONSTITUTIONAL HISTORY

4 sem. hrs.

428 SEMINAR: AMERICAN DIPLOMACY

4 sem. hrs.

431 SEMINAR: THE OLD NORTHWEST, 1840-1880

4 sem. hrs.

432 RESEARCH PROBLEMS IN LOCAL HISTORY

4 sem. hrs.

441 SEMINAR: EUROPEAN INTELLECTUAL HISTORY

4 sem. hrs.

453 SEMINAR: THE REFORMATION

4 sem. hrs.

461 SEMINAR: EIGHTEENTH CENTURY BRITAIN

4 sem. hrs.

463 SEMINAR: MODERN FRANCE

4 sem. hrs.

466 SEMINAR: MODERN GERMANY

4 sem. hrs.

468 SEMINAR: MODERN RUSSIA

4 sem. hrs.

472 SEMINAR: TWENTIETH CENTURY LATIN AMERICA

4 sem. hrs.

477 SEMINAR: THE CONTEMPORARY MIDDLE EAST

4 sem. hrs.

The course will deal, one each offering, with major historical questions arising out of the partition of the Ottoman Empire at the end of World War I. Likely topics are the Arab-Israeli conflict, the rise of Arab Nationalism, the emergence of nation-states in the Middle East, Nasser and the West, Arab oil and American foreign policy.

497 RESEARCH SEMINAR

1-4 sem. hrs.

498 PHILOSOPHY OF HISTORY AND HISTORIOGRAPHY

4 sem. hrs.

Examination of the philosophical bases for

historical study with review of the development of historical knowledge and the historical profession.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

501 INTERPRETIVE PROBLEMS IN TEACHING HISTORY

4 sem. hrs.

Examination of selected problems of historical interpretation with special emphasis upon their use in history teaching.

505 SEMINAR AND PRACTICUM IN HISTORY TEACHING

4 sem. hrs.

Involves students in analyzing and evaluating teaching and research findings, examining alternatives goals and teaching methods, and preparing model instructional units.

506 RESEARCH-INTERNSHIP IN THE TEACHING OF HISTORY

4 sem. hrs.

Involves students in analysis of research findings, a teaching internship, and planning a dissertation proposal.

599 RESEARCH IN HISTORY

Variable Credit

Research involving the gathering of data to form the basis of the dissertation required for the Doctor of Arts.

Home Economics and Industrial Technology

Home Economics

Chairperson of the Department: Joe E. Talkington. Office: Turner Hall 210

Office: Turner Hall 134

Teaching Staff: B. Hackett, J. James, J. Karch.

The department offers work leading to the following degrees: M.A., M.S., M.S. in Ed. University requirements for the master's degree are listed elsewhere in this catalog.

COURSES

301 EVALUATION IN HOME ECONOMICS

2 sem. hrs.

Evaluation and basic principles involved; methods and techniques; individual problems. Materials charge.

304 CURRICULUM DEVELOPMENT IN HOME ECONOMICS

3 sem. hrs.

Organization, methods, materials, and evaluation in relation to type of program and age level. Individual or group problems. Materials charge.

306 EMPLOYMENT PROGRAMS IN HOME ECONOMICS

3 sem. hrs.

Organization, administration, and operation of home economics gainful employment programs in public schools. Materials charge.

307 THE INFANT AND TODDLER

3 sem. hrs.

Growth and behavior of young child as related to family and other factors. Prerequisites: Psychology 111 and Home Economics 130 or consent of instructor. Materials charge.

308 ORGANIZATION AND ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS

3 sem. hrs.

The nursery school and other educational and care units responsible for the guidance of the young child. Prerequisites: Home Economics 130 and 250 or consent of instructor. Materials charge.

313 FOOD CUSTOMS

2 sem. hrs.

Influence of food customs of various ethnic groups on American meal patterns. Materials charge.

316 FOOD INVESTIGATIONS

3 sem. hrs.

Experimental approach to principles underlying food preparation. Prerequisite: Home Economics 213. Materials charge.

320 DEMONSTRATION TECHNIQUES

2 sem. hrs.

Techniques and standards for demonstrations in various areas of home economics. Prerequisites: Home Economics 213 and 220. Materials charge.

322 PROBLEMS IN CLOTHING

3 sem. hrs.

Study of problems in clothing and pattern making. Prerequisite: Home Economics 122 and consent of instructor. Materials charge.

323 ADVANCED TEXTILES

2 sem. hrs.

Developments in the textile field, particularly manmade fibers and their products. Significance of the textile market for consumers. Prerequisite: Home Economics 120. Materials charge.

324 DRAPING AND DESIGN

3 sem. hrs.

Formerly: Advanced Costume Design and Draping. Interpretation of garment designs in fabric by means of the draping procedure. Body form may be constructed. Prerequisite: Home Economics 220 or consent of instructor. Materials charge.

330 DECISION-MAKING FOR CONSUMERS

3 sem. hrs.

Consumer problems, trends and information. Insurance, housing credit, life style, consumer protection, leisure and achieving financial security. Also offered as Business Education 330. Materials charge.

401 SUPERVISION OF STUDENT TEACHING IN HOME ECONOMICS

3 sem. hrs.

Responsibilities of Supervising Teacher. Techniques of supervision. Preparation of supervisory materials.

402 SEMINAR IN HOME ECONOMICS

2 sem. hrs.

Materials charge.

406 HOUSEHOLD EQUIPMENT

2 sem. hrs.

Equipment for the modern home and home economics laboratory. Group and individual experiences with various types of labor-saving equipment. Materials charge.

408 FAMILY AND CHILD DEVELOPMENT

3 sem. hrs.

Fundamental and current problems regarding the child and family. Practice in problem-solving and committee projects. Materials charge.

409 RECENT TRENDS IN HOME ECONOMICS

2 sem. hrs.

Development as reflected in practices, methods and materials being recommended. Review of current professional literature. Materials charge.

410 FAMILY HOUSING PROBLEMS

3 sem. hrs.

Current trends and programs in housing with emphasis on family living as related to aesthetic, social, economic, and managerial aspects. Materials charge.

412 ADVANCED HOME MANAGEMENT

3 sem. hrs.

Planning, directing and coordinating material and human resources in the home. Application of principles basic to modern household processes. Materials charge.

414 SPECIAL PROBLEMS: CLOTHING

3 sem. hrs.

Individual advanced work on several different problems or a more intensive study of one special phase of clothing. Materials charge.

416 ADVANCED PROBLEMS IN FOOD INVESTIGATION

3 sem. hrs.

Experimental study of foods and food preparation. Materials charge.

418 SELECTION OF PROCESSED FOODS

2 sem. hrs.

Appraisal of processed foods to determine practical utilization of various types. Materials charge.

420 ADVANCED NUTRITION

3 sem. hrs.

Nutrition research applied to improved dietary planning. Materials charge.

422 HISTORY OF COSTUME

3 sem. hrs.

Costume through the ages as expression of social, economic, and cultural life of time. Materials charge.

424 SELECTED PROBLEMS IN HOME ECONOMICS

1-6 sem. hrs.

Prerequisites: Consent of instructor and department coordinator. May be repeated. Materials charge.

426 ADVANCED TAILORING

3 sem. hrs.

Students tailor garments selected to provide variety of experiences using techniques that insure a professional product. Materials charge.

491 INTERNSHIP IN COLLEGE TEACHING IN HOME ECONOMICS

3 sem. hrs.

(See Curriculum and Instruction 491.)

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

Four to six hours required in the thesis option. Registration beyond six hours permitted but not counted toward the degree.

Industrial Technology

Teaching Staff: C. Bell., R. Blomgren, J.G. Erisman, J. Johnston, F. Kagy, F. Loepp, C. Porter,

W.L. Quane, J. Talkington, G. Weede, E. Wiseman, W. Zook.

PROGRAMS OFFERED

The department offers work leading to the following degrees: M.A., M.S., M.S. in Ed. University requirements for master's degrees are listed elsewhere in this catalog.

The master's degree program provides opportunity to elect majors in industrial technology, industrial education, industrial education administration, traffic education, and occupational safety. Within these broad programs a student may select courses which will lead to specialization.

COURSES

300 CONTEMPORARY INDUSTRIAL EDUCATION 2 sem. hrs.

Prominent leaders and analysis of trends in industrial education. Materials charge.

301 INDUSTRIAL ARTS IN THE ELEMENTARY SCHOOL 2 sem. hrs.

Educational principles underlying industrial arts and their application in the elementary activity program. Materials charge.

302 EVALUATION TECHNIQUES IN THE PRACTICAL ARTS AND OCCUPATIONAL EDUCATION 3 sem. hrs.

Historical background of measurement; examination of objectives and methods; evaluation of student abilities and growth; evaluation of facilities and equipment. Materials charge.

303 CONSTRUCTION TECHNOLOGY CURRICULUM (IACP) 4 sem. hrs.

The rationale for and the teaching and implementation of construction technology in secondary school, industrial education programs.

304 OCCUPATIONAL AND JOB ANALYSIS 3 sem. hrs.

Techniques and procedures for analyzing occupations and jobs for instructional purposes. Materials charge.

305 IMPROVEMENT OF INSTRUCTION IN THE PRACTICAL ARTS AND OCCUPATIONAL EDUCATION 3 sem. hrs.

Objectives, content, and techniques for improving teaching. Materials charge.

306 PART-TIME COOPERATIVE EDUCATION 3 sem. hrs.

Procedures involved in organizing and operating effective programs of cooperative vocational education. Materials charge.

307 EMPLOYMENT ANALYSIS FOR THE EXCEPTIONAL 3 sem. hrs.

Diagnosis and instruction of exceptional children who are placed in occupational education. Synthesizing employment and education for exceptional children. Also offered as Special Education 307. Materials charge.

308 MAN AND TECHNOLOGY 3 sem. hrs.

The course is designed to introduce to the student the concept of technology with emphasis on industrial technology, its growth magnitude and its effect on mankind and his basic institutions. Consideration is given to the chronology of technology, technology's effect on the world of work, contemporary technological problems and issues, and technology and the future.

309 MANUFACTURING TECHNOLOGY CURRICULUM (IACP) 4 sem. hrs.

The rationale for and the teaching and implementation of manufacturing technology in secondary schools, industrial education programs.

319 COMPUTER GRAPHICS

3 sem. hrs.

Combination of graphic techniques and computer programming as means of industrial communication applied to solution and interpretation of technological problems. Materials charge.

320 MASONRY CONSTRUCTION

4 sem. hrs.

Theory, materials and practices of concrete and masonry construction. Practical experience through on-site activities.

321 CARPENTRY CONSTRUCTION

4 sem. hrs.

Theory, materials and practices of the building construction industry. Practical experience through on-site activities including carpentry and related trades.

325 INDUSTRIAL PLASTICS

3 sem. hrs.

Resins, processing, and fabrication; injection molding, extrusion, rotational molding, foaming, thermo-forming, identification and testing. Prerequisite: Industrial Technology 192 or consent of instructor. Materials charge.

331 MACHINE TOOL TECHNOLOGY III

4 sem. hrs.

Theory and practice involving setups for production machining: numerical control machine programming, turret lathe applications, production processes, technical reports. Prerequisite: Industrial Technology 233 or consent of instructor. Materials charge.

332 APPLIED PHYSICAL METALLURGY

3 sem. hrs.

Physical and mechanical properties of metals, testing properties, crystalline structure, metallurgical examination, constitution of alloys, heat treatment, industrial applications. Prerequisite: Industrial Technology 192 or consent of instructor. Materials charge.

346 INDUSTRIAL ELECTRONICS

3 sem. hrs.

Operation and characteristics of electronic circuits and devices employed in non-communications applications. Prerequisite: Industrial Technology 242 or 244. Materials charge.

349 TECHNICAL WRITING

3 sem. hrs.

Instruction and practice in the forms and techniques of technical writing, adapted wherever possible to the professional interests of the individual student. Prerequisites: English 101 or consent of instructor. Also offered as English 349.

351 IMAGE CARRIERS AND IMAGE TRANSFER

3 sem. hrs.

Laboratory practice of basic printing machines; theory of printing machine systems, troubleshooting and plate and plate-making systems. Prerequisite: Industrial Technology 250 or consent of instructor. Materials charge.

352 CHARACTER GENERATION

3 sem. hrs.

Theory, laboratory practice on photo composition, impact and hot metal machines. Cathode-ray tube and computer application. Prerequisite: Industrial Technology 250 or consent of instructor. Materials charge.

353 COLOR SEPARATION

3 sem. hrs.

Theory of color, modern color separation methods, fake color, transmission and reflection copy, color correction, additive and subtractive color. Prerequisite: Industrial Technology 253 or consent of instructor. Materials charge.

354 THE GRAPHIC ARTS INDUSTRY

3 sem. hrs.

Graphic arts industrial organization of human resources, physical assets, and money; efficient production of graphic communications products. Prerequisite: Industrial Technology 250 or consent of instructor. Materials charge.

361 MOTOR VEHICLE DIAGNOSIS

3 sem. hrs.

Motor vehicle systems diagnosis; emphasis on electrical and fuel systems; experience on mechanical systems. Prerequisites: Industrial Technology 261 and 262 or consent of instructor. Materials charge.

363 FLUID POWER SYSTEMS DESIGN AND ANALYSIS

3 sem. hrs.

Design, sizing and analysis of hydraulic and pneumatic circuits including both machine tool and mobile applications. Prerequisite: Industrial Technology 263 or consent or instructor. Materials charge.

370 INDUSTRIAL ACCIDENT PREVENTION

3 sem. hrs.

Principles, responsibilities and techniques for developing, organizing, implementing and administering an industrial safety program. Materials charge.

371 ALCOHOL AND ACCIDENT PHENOMENON

3 sem. hrs.

Effects of alcohol on accident causation. Psychological, physiological, pharmacological actions of alcohol in view of medical, sociological, religious, economic aspects. Materials charge.

372 ACCIDENT INVESTIGATION, RECORDS AND EVALUATION

3 sem. hrs.

Theory and function of accident investigation, reporting and analysis systems. Form design and utilization and cost evaluation procedures. Materials charge.

373 AGRICULTURAL ACCIDENT PREVENTION

3 sem. hrs.

Major problems of accident causation and prevention applicable to agriculture and the need for

farm safety education. Also offered as Agriculture 345. Materials charge.

374 METHODS AND MATERIALS OF TEACHING DRIVER EDUCATION

3 sem. hrs.

Laboratory experience in teaching beginning drivers using driving simulation and dual-control car on the street. Prerequisite: Industrial Technology 172. Materials charge.

375 TRAFFIC ENFORCEMENT

2 sem. hrs.

Philosophy, methods of detecting, apprehending violators. Fundamentals of traffic law applicable to laymen, technicians, and teachers. Prerequisite: Industrial Technology 172 or concurrent registration or consent of instructor. Materials charge.

376 PROBLEMS AND RESEARCH IN ACCIDENT PREVENTION

3 sem. hrs.

Problems confronting researchers in the safety field; current findings applicable to the students' area of interest. Prerequisite: Industrial Technology 171 or consent of instructor. Materials charge.

377 TRAFFIC ENGINEERING

2 sem. hrs.

Investigation of vehicle and environmental components of HTS; vehicle inspection, equipment, design; traffic studies performed; traffic planning to reduce collisions, congestion. Prerequisite: Industrial Technology 172 or concurrent registration, or consent of instructor. Materials charge.

378 DISASTER PREPAREDNESS

3 sem. hrs.

Organizing, directing, coordinating disaster services in schools, industry and local government. Includes T.B.A. 48 hr. disaster exercise. Materials charge.

379 CURRICULUM DEVELOPMENT IN DRIVER EDUCATION

3 sem. hrs.

Behavioral oriented curriculum applicable to

driver education. Behavioral objectives, learning activities, measurement of student performance peculiar to driver education. Prerequisites: Industrial Technology 171 and 172. Materials charge.

380 FIRE PROTECTION AND PREVENTION **4 sem. hrs.**

Measures related to safeguarding human life and preservation of property in prevention, detection, extinguishing fires. Prerequisite: Industrial Technology 171 or consent of instructor. Materials charge.

386 TECHNICAL COMPUTER PROGRAMMING **3 sem. hrs.**

Digital computer systems, programming digital computers and their use in solving problems related to applied sciences and technologies. Laboratory arranged. Materials charge.

401 FOUNDATIONS OF INDUSTRIAL EDUCATION **3 sem. hrs.**

Underlying movements and philosophies which have influenced the development of industrial education. Materials charge.

402 ORGANIZATION AND ADMINISTRATION OF THE PRACTICAL ARTS AND OCCUPATIONAL EDUCATION **3 sem. hrs.**

Problems confronting the teacher and administrator; basis for their solution. Materials charge.

403 SEMINAR IN INDUSTRIAL TECHNOLOGY **2 sem. hrs.**

Individual and group problems from the fields of industrial technology or accident prevention. May be repeated to total of six hours. Materials charge.

404 SPECIAL PROJECTS IN INDUSTRIAL TECHNOLOGY **1-3 sem. hrs.**

Investigation of selected areas of industrial technology or accident prevention. Laboratory work may be included. Prerequisite: File plan with adviser, gain consent of instructor prior to enrollment. May be repeated to total of six hours. Materials charge.

405 PHILOSOPHY OF THE PRACTICAL ARTS AND OCCUPATIONAL EDUCATION **3 sem. hrs.**

Philosophical bases for practical arts and occupational education. Materials charge.

470 CONCEPTUAL MODELS OF ACCIDENT PREVENTION **4 sem. hrs.**

Man-machine relations: factors which influence or impair machine-human functions resulting in systems failure. Materials charge.

490 EXTERNSHIP: INDUSTRIAL TECHNOLOGY/ACCIDENT PREVENTION **3-8 sem. hrs.**

Work with business and industrial firms or governmental agencies in administrative positions. Prerequisite: To be confirmed two months prior to assignment by the department chairperson. Copy filed with office of Dean of Graduate School.

491 INTERNSHIP IN COLLEGE TEACHING IN INDUSTRIAL EDUCATION **3 sem. hrs.**

(See Curriculum and Instruction 491.)

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS **1-6 sem. hrs.**

Four to six hours required in the thesis option. Registration beyond six hours permitted but not counted toward the degree.

Information Sciences

Chairperson of the Department: C. Edward Streeter. Office: Stevenson 208.

Teaching Staff: J. Boaz, R. Brake, J. Cragan, R. Hirsch, R. Holdridge, D. Hustuft, T. Jackson, D. Larson, P. Owen, S. Rives, W. Sendlak, R. Smith, C.E. Streeter, T-H Tchong, C. White, W. Williams, R. Wiman, F. Wisely, D. Wright.

The department offers work leading to the M.A., M.S. and M.S. in Ed. degrees in Speech Communication and to the M.S. and M.S. in Education degrees in Instructional Media.

Speech Communication offers areas of emphasis in the general communication theory, organizational communication, persuasion, group communication process and leadership, contemporary communication criticism, minority group communication problems, communication education, language behavior and mass communication.

The Instructional Media program also allows the student to obtain his degree by taking the comprehensive examination or writing a thesis. The following course or its equivalent is prerequisite to the program: Information Science 240—depending on the student's interest or needs.

The Instructional Media program offers three areas of emphasis: (1) Production of Instructional Materials, (2) Administration of Media Programs, (3) Communication Theory and Research.

University requirements for the above degrees are listed elsewhere in this catalog.

Information Sciences

COURSES

301 ADVANCED REFERENCE SOURCES

3 sem. hrs.

The selection, use, and evaluation of print and non-print reference materials in selected subject fields.

305 BUILDING AND MAINTAINING LIBRARY COLLECTIONS

3 sem. hrs.

A survey of general selection aids; principles of selection, criteria for evaluation. Development of a materials selection policy, intellectual freedom and censorship.

306 LIBRARY MATERIALS FOR CHILDREN (formerly LSC 202)

3 sem. hrs.

Selection, evaluation and use of materials, both print and non-print, in various subject areas. Use of materials in meeting individual interests, needs, and abilities of children.

307 MEDIA FOR YOUNG ADULTS

3 sem. hrs.

Selection, evaluation and use of media for young adults in public and in secondary school libraries. All materials are related to development of young people, and to curriculum of junior and senior high schools.

308 LIBRARY MATERIALS FOR ADULTS

3 sem. hrs.

Evaluation, selection, and use of library materials for adults; study and analysis of materials for public libraries. Adult needs and reading interests.

310 ORGANIZATION OF LIBRARY MATERIALS

4 sem. hrs.

Principles of cataloging and classification and their application in organizing media collections; Dewey Decimal Classification System and the Anglo-American cataloging code. Supervised laboratory work.

312 ORGANIZATION OF THE LIBRARY MATERIALS CENTER

3 sem. hrs.

Principles and procedures in developing and directing library media services. Materials, their organization and use; personnel management; library facilities, program evaluation.

326 LIBRARY SERVICES FOR SPECIAL GROUPS

3 sem. hrs.

Developments and trends in library programs for senior citizens, patients, inmates, retarded and physically handicapped persons, and socio-economically deprived groups; health, welfare, and correctional work programs.

327 SPECIAL LIBRARIES

3 sem. hrs.

Supervised field trips, survey of the services and functions of the major types of special libraries.

337 PROGRAMMED LEARNING

3 sem. hrs.

Construction and evaluation of programmed learning; critical analysis of learning theory as it relates to programmed learning. Use of programmed materials in the classrooms.

340 COMPUTER APPLICATIONS IN EDUCATION

3 sem. hrs.

Consent of instructor. Formerly Library Science—Instructional Media. Examination and discussion of the ways computers may be used in education. Administration, instruction, research, storage of information, accounting and simulation.

345 INTRODUCTION TO LIBRARY TECHNOLOGY

3 sem. hrs.

Application of mechanized, automated and computerized equipment to achieve economy, efficiency and speed in library operations. Analysis and design of library systems.

350 EVALUATION AND COLLECTION OF MAP RESOURCES, ATLASES AND AERIAL PHOTOGRAPHS

3 sem. hrs.

Formerly Library Science—Instructional Media. Selection, acquisition, conservation, storage and circulation of map materials. Criteria for evaluating maps and atlases.

360 MASS COMMUNICATION: THEORY AND EFFECTS

3 sem. hrs.

A critical examination of channel and receiver variables and their effects on the act of moving information through a given medium. Students participate in at least one research project of their design. Prerequisite: Speech 110 and Information Science 160.

361 REGULATION OF THE COMMUNICATION INDUSTRY

3 sem. hrs.

Formerly: Law and Regulation of Mass Communication. Lecture and laboratory. Television as a means of instruction in terms of research, technique, utilization and evaluation. Prerequisite: Information Science 160.

362 INSTRUCTIONAL TELEVISION

3 sem. hrs.

Lecture and laboratory. Television as a means of instruction in terms of research, technique, utilization and evaluation.

364 BROADCAST MANAGEMENT

3 sem. hrs.

The role and functions of broadcast media managers in society. Prerequisite: Information Science 160, 264, 361.

365 PRODUCTION OF INSTRUCTIONAL MATERIALS

3 sem. hrs.

Fundamental skills of preservation, compilation, adaptation, lettering, enlargement, reduction, duplication, and production of audiovisual materials. Prerequisite: Library Science—Instructional Media 240. Materials charge.

366 ADVANCED PRODUCTION

3 sem. hrs.

Advanced topics and techniques of planning and producing audiovisual materials for individualized instruction, large group presentation and other

multi-media configurations. Prerequisites: Library Science—Instructional Media 241 and 365 or consent of instructor. Materials charge.

367 AUDIO PRODUCTION

3 sem. hrs.

Selection, evaluation, production, operation and maintenance of audio devices and materials. Materials charge.

368 MOTION PICTURE PRODUCTION

3 sem. hrs.

Theory and practice in planning and producing motion pictures. Considers treatments, storyboard, script writing, shooting, editing, titling and technical problems of production. Student buys film and processing.

433 ADMINISTRATION OF MEDIA CENTERS

3 sem. hrs.

Principles and practices of organizing and managing instructional media programs in school systems, colleges, business and industry. Considers services, facilities, budgeting, personnel, public relations, and evaluation.

434 RESEARCH IN INSTRUCTIONAL MEDIA

3 sem. hrs.

Critical analysis of selected research studies in institutional communications and technology. Research methods and sources of data in major categories of media research. Prerequisites: Information Science 240 or consent of instructor.

435 INSTRUCTIONAL SYSTEMS DEVELOPMENT

3 sem. hrs.

Involves specific identification of an instructional problem; analysis of the resources and alternatives; and the synthesizing procedures toward an effective solution. Prerequisite: Information Science 240 or consent of instructor.

436 INSTRUCTIONAL MESSAGE DESIGN

3 sem. hrs.

Planning and designing mediated instructional

messages. Concepts developed are applied to the production and evaluation of a selected design problem. Prerequisites: Information Science 355, 357, 358, and 435.

493 SEMINAR IN MASS COMMUNICATION

See Speech Communication 493.

497 RESEARCH SEMINAR

See Speech Communication 497

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

See Speech Communication 499.

Speech Communication

COURSES

302 COMMUNICATION CRITICISM

3 sem. hrs.

Formerly Speech Communication 327. Examination of communication theories as applied to the criticism of oral and nonoratorical media such as speeches, film, music, drama and literature. Prerequisite: Speech Communication 110 or consent of instructor.

303 CONTROVERSY AND CONTEMPORARY SOCIETY

3 sem. hrs.

A study of contemporary communication on current significant, controversial issues. Prerequisite: Speech Communication 110 or consent of instructor.

304 FREEDOM OF SPEECH AND PRESS

3 sem. hrs.

Consideration of the nature of and limitations upon freedom of expression with attention to the problems of civil disorder, national survival, and censorship. Application of concept of free speech and press to current campus and community issues. Prerequisite: Speech Communication 110 or consent of instructor.

321 MESSAGE COMPOSITION

3 sem. hrs.

Application of communication theory and research to the composition of persuasive messages. Emphasis on organizational and language factors which determine the effects of mediated and non-mediated communication. Prerequisite: Speech Communication 110 or consent of instructor.

323 THEORY AND RESEARCH IN SMALL GROUP COMMUNICATION

3 sem. hrs.

A survey of theoretical and experimental literature dealing with small group communication processes as a means of decision-making in a free society. Prerequisite: Speech Communication 110 or consent of instructor.

324 THEORY AND RESEARCH IN PERSUASION

3 sem. hrs.

A survey of theoretical and experimental literature, dealing with the question of how an individual's attitudes, beliefs, and social behavior may be affected by communication. Prerequisite: Speech Communication 110 or consent of instructor.

325 NONVERBAL COMMUNICATION

3 sem. hrs.

Consideration of nonverbal communication as physiological, psychological and cultural phenomena. Emphasis upon time, space, touch, gesture, objects, voice and eye behavior and their relationship to communication and culture. Prerequisite: Speech Communication 110 or consent of instructor.

328 CONTEMPORARY RHETORICAL THEORY

3 sem. hrs.

329 ORGANIZATIONAL COMMUNICATION

3 sem. hrs.

Basic theory and research in organizational communication. Emphasis on communication process variables, patterns and structures. Prerequisite: Speech Communication 110 or consent of instructor.

330 DIRECTING THE FORENSICS PROGRAM

3 sem. hrs.

Advanced study in argumentation and debate theory with attention to problems of directing a forensics program. Prerequisite: Speech Communication 110 or consent of instructor.

370 PSYCHOLOGY OF LANGUAGE

3 sem. hrs.

Surveys, theories and experimental research relating to the development and functions of language performance, competence and acquisition including contributions from the fields of speech, psychology, linguistics and communication. Prerequisite: Speech Communication 110 or consent of instructor.

371 POLITICAL COMMUNICATION

3 sem. hrs.

Basic theory and research relating to political campaign communication. Special attention is paid to the persuasive process of political campaigning focusing upon the role of the media, the candidate, image creation and other selected topics on political campaign communication. Prerequisite: 6 hrs. of speech communication and 6 hrs. of political science or consent of the instructor.

380 DIRECTED PROJECTS

1-3 sem. hrs.

Also offered as Information Science 380.

381 PROBLEMS IN THE TEACHING OF COMMUNICATION

3 sem. hrs.

Present trends in the teaching of communication and evaluation of current teaching materials. A maximum of four hours may be earned in this course. Prerequisite: Speech Communication 110 or consent of instructor.

422 PROSEMINAR IN COMMUNICATION

3 sem. hrs.

Introduction to theory and empirical research in communication. Includes units on empirical research; methods in communication; an overview

and analysis of the process of communication in general; theory and research in language behavior; the analysis of individual units of communication; and theory and research dealing with the special consideration imposed by group size, group complexity and the available media. Must be taken by first year graduate students who have not had equivalent course.

423 THE PROCESS OF COMMUNICATION
3 sem. hrs.

Studies the process of communication as it occurs between individuals, small groups, in organizations and in mass societies.

Covers theoretical and research literature from the fields of speech, psychology, sociology and communication. Not open to majors in the department.

424 SEMINAR IN PERSUASION
3 sem. hrs.

May be repeated to a total of six semester hours if different material is covered. Prerequisite: Speech Communication 324 or consent of instructor.

481 SEMINAR IN COMMUNICATION
EDUCATION
3 sem. hrs.

May be repeated to a total of six semester hours if different material is covered.

491 INTERNSHIP IN COLLEGE TEACHING
IN COMMUNICATION
3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

492 SEMINAR IN COMMUNICATION
THEORY
3 sem. hrs.

May be repeated to a total of six semester hours if different material is covered. Prerequisite: Consent of instructor.

493 SEMINAR IN MASS COMMUNICATION
3 sem. hrs.

May be repeated to a total of six semester hours if different material is covered. Prerequisite: Information Sciences 360 or consent of instructor.

494 SEMINAR IN SMALL GROUP
COMMUNICATION
3 sem. hrs.

May be repeated to a total of six semester hours if different material is covered. Prerequisite: Speech Communication 323 or consent of instructor.

495 SEMINAR IN ORGANIZATIONAL
COMMUNICATION
3 sem. hrs.

May be repeated to a total of six semester hours if different material is covered. Prerequisite: Speech Communication 329 or consent of instructor.

496 SEMINAR IN RHETORICAL THEORY
3 sem. hrs.

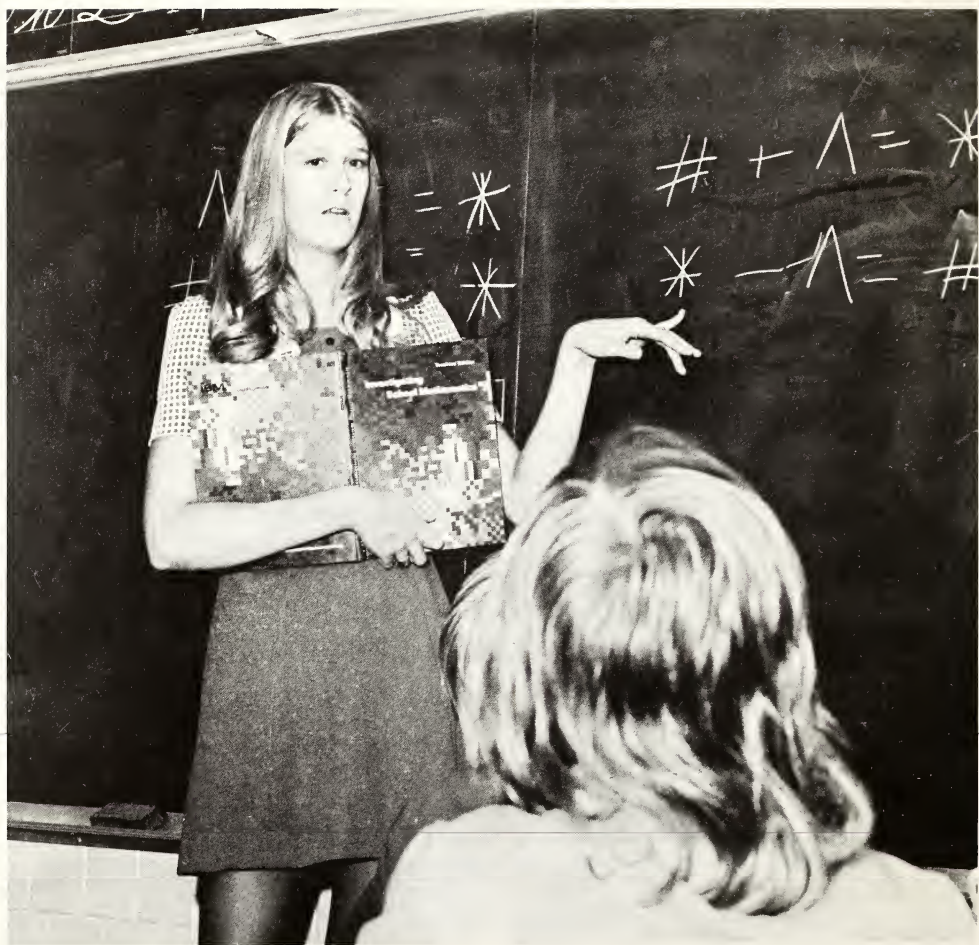
May be repeated to a total of six semester hours if different material is covered.

497 RESEARCH SEMINAR
3 sem. hrs.

Introduction to methods of scholarly research and the critical evaluation of research in communication. Must be taken by first year graduate students. May be repeated to a total of six semester hours by advanced students as they pursue special research problems.

499 INDEPENDENT RESEARCH FOR THE
MASTER'S THESIS
1-6 sem. hrs.

Students electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.



Mathematics

Chairperson of the Department: Robert K. Ritt. Office: Stevenson Hall 313.

Teaching Staff: K. Berk, D. Bey, F. Brown, L. Brown, R. Crumley, S. Clemens, C. Dodd, J. Dossey, O. Edge, L. Eggan, R. Forcade, S. Friedberg, K. Ha, R. Hathway, A. Insel, C. Morris, P. O'Daffer, A. Otto, J. Parr, K. Retzer, R. Ritt, T. Shilgalis, R. Speiser, L. Spence, C. Vanden Eynden.

PROGRAMS OFFERED

The Department of Mathematics offers selected programs of graduate work leading to the Master of Arts, Master of Science, Master of Science in Education and Doctor of Arts. These programs, determined by the student and the adviser, reflect the recognized need for creative teachers of mathematics at all levels, for innovative research mathematicians, and for qualified persons in the fields of statistics, computer science, and applied mathematics.

MASTER'S DEGREE PROGRAMS

For the degrees of Master of Arts and Master of Science, the student must meet the general university requirements listed elsewhere in this catalog and the following departmental requirements: (1) The student must pass the mathematics comprehensive examination. Complete information is available in the mathematics office. (2) Before completion of the degree the student is required to: a. take 315 and 317, b. take at least one of the courses from each of the sequences 312-313, 347-348, and 350-351, and c. complete at least one of the sequences in b. Students are encouraged to take 316 and to complete all three of the sequences in b. Entering students will be expected to have completed at least three of the courses in a. and b. in their undergraduate work. Courses equivalent to those above will be accepted.

A student may elect hours in an area outside mathematics with the approval of the chairperson of the department. A thesis may also be elected by the student and in this case the student will work with an

adviser in a selected area of interest.

The following courses, listed according to career interest, are recommended as electives in the program of a candidate for the degree of Master of Arts or Master of Science.

- (1) Further graduate work in mathematics: 321, 407, 408, 445, 447, 448, 449, 470, 471.
- (2) Mathematics education: 310, 320, 321, 323, 362, 421, 422, 430.
- (3) Statistics: 450, 451, 452, 453, 455, 458.
- (4) Industry or Government:
 - (a) computer science: 366, 368, 369, 370, 372, 463.
 - (b) applied mathematics: 335, 340, 341, 370, 440, 441.

For the degree of Master of Science in Education with a major in mathematics, the student must meet the general university requirements listed on pages— and must fulfill the requirements of either the College Teaching Program or the Secondary Teaching Program as listed on page—. Upon completion of the degree the student must have had courses numbered 300 or above in algebra, analysis, geometry, and mathematics education. Courses in statistics and number theory are highly recommended. The student's adviser along with the student will tailor the program to meet the background and needs of the student.

Each candidate must pass the mathematics comprehensive examination unless electing to write a thesis, in which case the examination usually consists of an oral defense of the thesis. If the thesis option is chosen, the student will work with an adviser in a selected area of interest. It should be noted that in the College Teaching Program option the preparation is usually for the teaching of lower-division college courses in mathematics.

A number of teaching assistantships and faculty assistantships are available. Inquiries should be directed to the chairperson of the Mathematics Department.

DOCTOR OF ARTS PROGRAM

A doctoral program offered to persons seeking advanced training for teaching in the community college. Admission to the program ordinarily requires previous successful teaching experience and a level of mathematical training equivalent to a master's degree in mathematics or mathematics education.

Candidates for admission who do not meet these requirements or whose career objective is teaching in four year colleges will be considered on an individual basis and may require a personal interview.

Each candidate will be expected to complete a dissertation which is original and has relevance to the profession of teaching in the community college. The prospectus for the dissertation can be officially considered and accepted by the department only after the student has passed his Qualifying Evaluation; to pass this Evaluation each student must demonstrate substantial competence in 1) Algebra, 2) Real and Complex Analysis, 3) Geometry or Topology, 4) Mathematics Education, and 5) an approved elective area. This competence may be demonstrated in each area by either one of two methods: a) completion of the appropriate courses with grades of A, or b) passing a qualifying examination. In addition, the student must complete an approved instructional sequence in applied mathematics or associated discipline. Each student will be expected to demonstrate academic proficiency in at least four of the seven units in the Higher Education Sequence for which he will receive a maximum of six hours credit. The student will be expected to fulfill all the requirements of the Graduate College.

COURSES

301 MATHEMATICAL TOPICS FOR ELEMENTARY TEACHERS

3 sem. hrs.

Significant problems, viewpoints and trends in teaching of arithmetic. Research related to organization, content and techniques in this field. Prerequisite: Mathematics 151 or consent of instructor; not for major-minor credit.

302 MATHEMATICAL TOPICS FOR JUNIOR HIGH TEACHERS

2 sem. hrs.

Problems, viewpoints and trends in teaching junior high school mathematics. Implication of logic and foundations of mathematics for teaching in this field. Prerequisite: Mathematics 201 or 202 or teaching experience; not for major-minor credit.

303 DIAGNOSIS AND REMEDIATION OF ELEMENTARY MATH LEARNING PROBLEMS

3 sem. hrs.

Analysis of Diagnostic and Remediation Procedures utilizing concrete materials for children experiencing difficulties in elementary school mathematics. Prerequisites: Mathematics 151 and 201 or consent of instructor.

306 SET THEORY

3 sem. hrs.

Elementary logic, set algebra, relations and functions, axioms for set theory, equivalence, ordinals and cardinals. Prerequisite: Mathematics 251 or 175.

308 MATRIX THEORY

2 sem. hrs.

Computational theory of matrices, matrix operations, inversion, solution to linear systems, eigenvalues and eigenvectors. Prerequisite: Mathematics 116 or 175.

310 NUMBER THEORY

3 sem. hrs.

Divisibility, primes, unique factorization, numerical functions, congruences, Diophantine equations, other topics. Prerequisite: Mathematics 116 or 175.

312 HIGHER GEOMETRY I

3 sem. hrs.

Geometric transformations, groups of transformations, invariants, transformations on the Euclidean plane. Prerequisite: Mathematics 116 or 136.

313 HIGHER GEOMETRY II

3 sem. hrs.

Topological transformations on the Euclidean plane; projective plane; synthetic and analytic projective geometry, projective conics. Prerequisite: Mathematics 312.

315 INTRODUCTION TO ABSTRACT

ALGEBRA I

3 sem. hrs.

Groups, homomorphisms, quotient groups; rings, ideals, integral domains, polynomials. Prerequisite: Mathematics 251 or 175.

316 INTRODUCTION TO ABSTRACT

ALGEBRA II

3 sem. hrs.

Unique factorization, extension fields, beginnings of Galois theory. Prerequisite: Mathematics 315.

317 LINEAR ALGEBRA

4 sem. hrs.

Vector spaces, linear transformations, dual space, inner product spaces, eigenvalues and eigenvectors, rational and Jordan canonical forms, quadratic and bilinear forms. Prerequisite: Mathematics 175 or 251.

320 HISTORY OF

MATHEMATICS TO 1600

2 sem. hrs.

Emphasis on Greek geometry, and growth of algebra and algebraic notation from early Mesopotamia through Renaissance. Prerequisite: Mathematics 175 or 251.

321 HISTORY OF MATHEMATICS, 1600

TO PRESENT

2 sem. hrs.

Development of modern mathematics (analysis, algebra, geometry) and the people in the forefront, beginning with Descartes. Emphasis on 19th century. Prerequisite: Mathematics 175 or 251.

323 MATHEMATICS FOR THE SECONDARY SCHOOL

3 sem. hrs.

Problems in selection, placement and teaching of

secondary mathematics topics. Language and symbolism. Analysis of recent trends and practices. Prerequisites: Mathematics 312 and 315 or concurrent registration.

325 FINITE MATHEMATICAL STRUCTURES

2 sem. hrs.

Methods of proof, finite algebra, partition and counting, stochastic processes, matrix algebra, theory of games and linear programming, application. Prerequisite: Mathematics 116 or 175.

335 ADVANCED CALCULUS I

3 sem. hrs.

Calculus of functions of several variables: Taylor's series of several variables, maxima and minima, Lagrange multipliers, multiple integration, Green's and Stoke's theorems. Prerequisite: Mathematics 176 or 231.

336 ADVANCED CALCULUS II

3 sem. hrs.

Content will vary. Topics may include introduction to Fourier series or differential geometry. Prerequisite: Mathematics 335.

340 DIFFERENTIAL EQUATIONS I

3 sem. hrs.

First order of differential equations, linear differential equations, series solutions, systems of linear differential equations, applications. Prerequisite: Mathematics 176 or 251.

341 DIFFERENTIAL EQUATIONS II

3 sem. hrs.

Numerical solutions, Laplace transform, theory of first order equations, theory of linear differential equations, Sturm theory, Sturm Liouville theory, Fourier series, introduction to partial differential equations with applications to the heat and wave equations. Prerequisite: Mathematics 340 and Mathematics 231 or 251.

347 INTRODUCTION TO REAL ANALYSIS I

3 sem. hrs.

Real and complex number systems, topology of

metric spaces, convergence, sequences and series, continuity, extreme and intermediate value theorems. Prerequisite: Mathematics 231 or 251.

348 INTRODUCTION TO REAL ANALYSIS II 3 sem. hrs.

Differentiation, Taylor's theorem, Riemann-Stieltjes integration, uniform convergence, Stone-Weierstrauss theorem, power series expansions, Fourier series. Prerequisite: Mathematics 347.

349 COMPLEX ANALYSIS I 3 sem. hrs.

Analytic function theory, complex plane, differentiability and analyticity, Cauchy's theorem, Taylor series and Laurent series. Prerequisite: Mathematics 251 or 231.

350 MATHEMATICAL STATISTICS I 3 sem. hrs.

Sample spaces, random variables, frequency functions, linear functions of random variables, nature of statistical functions, moment generating function, applications. Prerequisite: Mathematics 116 or 175.

351 MATHEMATICAL STATISTICS II 3 sem. hrs.

Correlation and regression equations, development of Chi-square, Student's t and F distributions, likelihood ratio tests, analysis of variance and non-parametric methods. Prerequisite: Mathematics 350.

362 COMPUTER-EXTENDED MATHEMATICS FOR SECONDARY SCHOOLS 3 sem. hrs.

Techniques of illustrating, deriving, and discovering mathematical concepts of the secondary curriculum by digital computer. Prerequisites: Calculus and C in Mathematics 168 or knowledge of programming.

366 BOOLEAN ALGEBRA AND LOGICAL DESIGN 3 sem. hrs.

Switching circuits, Boolean algebra as model for

propositional calculus, logical design of digital computers, logical programming. Prerequisite: Mathematics 116, 121 or 175.

368 PRINCIPLES OF DIGITAL COMPUTERS 3 sem. hrs.

Assembly languages. Writing assembler programs and subprograms, and running them on the IBM 360. Prerequisite: Mathematics 168 or consent of instructor.

369 DATA STRUCTURES 3 sem. hrs.

Data representation and organization, optimum encoding, structuring of data, lists, stacks, trees, deques, queues, depiction of geometric objects, sorting, merging and file maintenance. Prerequisites: Calculus and C in Mathematics 168 or knowledge or programming.

370 NUMERICAL ANALYSIS 3 sem. hrs.

Interpolation and approximation, error analysis, integration, techniques for solving differential equations, root finding, matrix manipulation. Prerequisites: Mathematics 251 or 176 and knowledge of FORTRAN programming.

372 INTRODUCTION TO FINITE AUTOMATA AND FORMAL LANGUAGES 3 sem. hrs.

Finite deterministic automata including sequential and two-way multitape automata. Formal languages and grammars, general systems theory. Prerequisite: Mathematics 315 or consent of instructor.

375 INTRODUCTION TO TOPOLOGY 3 sem. hrs.

Topology of metric spaces, introduction to general topological spaces, and other topics. Prerequisite: Mathematics 251 or 176.

390 INDEPENDENT STUDY 1-3 sem. hrs.

Prerequisite: Permission of the instructor and chairperson of the department.

407 ABSTRACT ALGEBRA I

3 sem. hrs.

Group theory, Galois theory, rings, ideals, modules, chain and structure theorems. Prerequisite: Mathematics 316 or consent of instructor.

408 ABSTRACT ALGEBRA II

3 sem. hrs.

Field and ring theory, the basics of representation theory and homological algebra. Prerequisite: Mathematics 407 or consent of instructor.

410 NUMBER THEORY

3 sem. hrs.

Continuation of Mathematics 310. Additional topics such as Pell's equation, continued fractions, Diophantine approximation. Prerequisite: Mathematics 310.

412 PROJECTIVE GEOMETRY

3 sem. hrs.

Fundamentals common to all geometries. Invariance under transformations leading to projective, affine and metric geometries. Homogeneous point and line coordinates. Prerequisite: Mathematics 313.

414 TOPICS IN GEOMETRY

3 sem. hrs.

Topics will include combinatorial problems in geometry, convexity and Helly's Theorem, sets of constant width, isoperimetric problems and others which may vary among different instructors. Prerequisites: Consent of instructor.

417 METRIC GEOMETRY

3 sem. hrs.

Theory and methods of linear algebra applied to geometries of Euclidean space, Minkowski space and the Lorentz plane. Prerequisites: Mathematics 315, 317; recommended Mathematics 312.

421 TOPICS IN ALGEBRA FOR TEACHERS

3 sem. hrs.

Problems in teaching of secondary school algebra. Investigation of reports, research, and re-

cent trends in this area. Prerequisite: Mathematics 175, 251, or 315.

422 TOPICS IN GEOMETRY FOR TEACHERS

3 sem. hrs.

Problems in teaching secondary school geometry. Investigation of reports, research and recent trends. Objectives and content of secondary school geometry. Prerequisite: Mathematics 211 or 312.

430 MODULES IN MATHEMATICS EDUCATION variable credit

Modules in mathematics education including mathematics curriculum, analysis of mathematics learning, general methods of teaching mathematics, strategies for teaching mathematics, evaluation in mathematics, and diagnosis and remediation of learning difficulties in mathematics. Modules are selected in consultation with advisor. Each module carries from one to three hours of credit. Prerequisites: Approval of Doctoral Committee.

440 DIFFERENTIAL EQUATIONS III

3 sem. hrs.

Linear and nonlinear systems. Picard Lindeloff and Peano existence theorems. Extension of solutions, oscillation and comparison theorems, asymptotic behavior. Prerequisite: Mathematics 341 or consent of instructor.

441 DIFFERENTIAL EQUATIONS IV

3 sem. hrs.

Stability, Lyapunov functions, perturbation theory. Poincare-Bendixson theory, periodic solutions. Prerequisite: Mathematics 440.

445 DIFFERENTIAL GEOMETRY

3 sem. hrs.

Curves and surfaces in Euclidean three-space, properties of a surface, tensor analysis, Riemannian geometry. Prerequisite: Consent of instructor.

447 REAL ANALYSIS I

3 sem. hrs.

The general Lebesgue integral, functions of

bounded variation and absolute continuity, introduction to general measure and integration theory. Prerequisite: Mathematics 317 and 348.

448 REAL ANALYSIS II

3 sem. hrs.

Continuation of Mathematics 447. LP spaces; general measure and integration theory. Prerequisite: Mathematics 447.

449 COMPLEX ANALYSIS II

3 sem. hrs.

Conformal mappings, Riemann surfaces, meromorphic functions, infinite products of holomorphic functions, and integration of differential forms. Prerequisite: Mathematics 349.

450 FINITE SAMPLING I

3 sem. hrs.

Application and theory of sampling, Mathematical sampling; simple, stratified, and cluster. Evaluation of plans with respect to precision and cost. Prerequisite: Mathematics 350.

451 FINITE SAMPLING II

3 sem. hrs.

Analysis of sampling designs from numerous fields of application. Use of basic sampling theorems in development of efficient models. Prerequisite: Mathematics 450.

452 THEORY OF STATISTICS

3 sem. hrs.

Order statistics, limiting distributions, sufficient statistics, likelihood ratio test, distribution of certain quadratic forms in analysis of variance. Prerequisites: Mathematics 116 or 176, and 351.

453 LINEAR STATISTICAL MODELS

3 sem. hrs.

Multivariate normal distribution, distribution of quadratic forms, the general linear hypothesis of full rank, regression models, analysis of variance models. Prerequisites: Linear algebra and Mathematics 351.

455 STOCHASTIC PROCESSES

3 sem. hrs.

Generating and characteristic functions of discrete probability density functions. Random walk and stochastic processes. Introduction of Markov chains. Prerequisite: Mathematics 351.

458 THE DESIGN OF EXPERIMENTS

3 sem. hrs.

Linear models and the logic of planned experimentation, choice of statistical technique, and analysis of data. Prerequisite: Mathematics 351.

463 THEORY OF COMPUTABILITY AND RECURSIVE FUNCTIONS

3 sem. hrs.

Recursive and recursively enumerable functions, Turing machines, Post systems, examples of decidable and unsolvable problems. Prerequisite: Mathematics 315 or consent of instructor.

470 GENERAL TOPOLOGY I

3 sem. hrs.

Topological spaces, uniform spaces, product and quotient spaces, separation properties and connected spaces, compact spaces. Prerequisite: Mathematics 347 or 375.

471 GENERAL TOPOLOGY II

3 sem. hrs.

Metrizability conditions, continuity, the theory of convergence using both filters and nets, completions and compactifications. Prerequisite: Mathematics 470.

480 FOUNDATIONS OF MATHEMATICS

3 sem. hrs.

Cardinals, ordinals, and structure of real number system; interaction of analysis algebra, number theory and topology. Prerequisite: Consent of instructor.

490 SEMINAR IN MATHEMATICS

1-4 sem. hrs.

Topics in theoretical and applied mathematics discussed by staff and visiting lecturers; individual study and student papers. May be repeated for credit

with different subject matter. Total credit earned may be up to eight semester hours. Prerequisite: Consent of instructor.

**491 INTERNSHIP IN COLLEGE
TEACHING IN MATHEMATICS**
3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491). Prerequisite: Mathematics 312, 315, 347; or consent of instructor.

493 PROSEMINAR
1-3 sem. hrs.

Supervised presentation by students of recently published mathematics and discussion of problems related to reading the mathematics literature. Prerequisite: Consent of Doctoral Committee.

**499 INDEPENDENT RESEARCH FOR THE
MASTER'S THESIS**
1-6 sem. hrs.

Four to six hours required in the thesis option. Registration beyond six hours permitted but not counted toward the degree.

**581 SEMINAR IN RESEARCH AND
DEVELOPMENT IN MATHEMATICS
EDUCATION**
3 sem. hrs.

Analysis of research in strategies or methods for teaching mathematics and in the learning of mathematics. Analysis of curriculum projects as they relate to these research findings. Analysis of current research and consideration of the implications of this research for new curricular innovations, and for classroom teaching. Prerequisites: Mathematics 430 or consent of instructor.

585 SEMINAR IN ALGEBRA
1-3 sem. hrs.

May be repeated to a total of 6 semester hours if different material is covered. Prerequisites: Mathematics 408 or consent of instructor.

587 SEMINAR IN ANALYSIS
1-3 sem. hrs.

May be repeated to a total of 6 semester hours if

different material is covered. Prerequisites: Mathematics 448 or consent of instructor.

588 SEMINAR IN TOPOLOGY
1-3 sem. hrs.

May be repeated to a total of 6 semester hours if different material is covered. Prerequisites: Mathematics 471 or consent of instructor.

599 DISSERTATION
(variable credit)

Research, library research, curriculum study, and writing related to Doctor of Arts dissertation requirement. Approval of the chairperson of the department is required. A maximum of 16 credit hours may be earned. Prerequisites: Admission to Doctoral Candidacy or consent of Doctoral Committee.

Microbiology
(See Biological Sciences)

Music

Chairperson of the Department: David L. Shrader, Office: Centennial Building, East 230.

Teaching Staff: D. Armstrong, R. Bedford, R. Cordero, A. Corra, L. Farlee, J. Ferrell, T. Han, W. Kim, A. Lewis, D. Peterson, M. Pollock, D. Poultney, J. Rehm, J. Roderick, H. Rye, D. Shrader, I. Spector, G. Sudano.

The department offers work leading to the following degrees: M.A., M.M.E., M.M., and M.S. All students seeking an advanced degree in music must take placement examinations in the areas of theory and history and literature. Departmental requirements will be determined in part by the results of the placement tests and students should check with their departmental adviser to develop their individual programs of study.

All graduate students in music will take a minimum of nine semester hours as a core requirement. In addition, all graduate students will select an area of concentration consisting of a minimum of twelve semester hours. The following concentrations

are available: Musicology, Theory and Composition, Performance, and Music Education.

All full-time graduate students are required to participate in a major performing organization.

Any student wishing to take graduate applied music must audition in his specific performance area.

Thesis options include: thesis, recital, composition, comprehensive examination.

CORE REQUIREMENTS

The following courses are required for all master's degrees:

357 Music Bibliography	3 hrs.
453 Studies in Music	3 hrs.
One course in music styles (as advised)	3 hrs.
	<hr/> 9 hrs.

CONCENTRATIONS

(All concentrations are available with the M.A. degree. The concentrations of Composition and Performance are available with the M.M. degree. With the M.M.E. degree, only the concentration of Music Education is available.) The following concentrations (12-hour minimum) are available to graduate students. Each student should declare a concentration before enrolling for the first semester of graduate study.

Musicology (Available with M.A.)

358 Notation	2 hrs.
452 The Symphony	3 hrs.
454 History of Musical Instruments	2 hrs.
455 Music in America	3 hrs.
Electives in Musicology	2 hrs.
	<hr/> 12 hrs.

Theory and Composition (Available with M.A. and M.M.).

305 Composition	3 hrs.
One course in music styles (as advised)	3 hrs.
464 Theory Pedagogy	3 hrs.
Electives in Theory	4 hrs.
	<hr/> 13 hrs.

Performance (Available with M.A. and M.M.).

431, 432, etc. (Applied Music)	6-10 hrs.
330 Pedagogy and Literature	2 hrs.
Electives in performance areas	0-4 hrs.
	<hr/> 12 hrs.

Music Education (Available with M.M.E. and M.S.).

360 Psychology of Music Education	3 hrs.
461 Seminar in Music Education	3 hrs.
497 Research Seminar	3 hrs.
Electives in Music Education	3 hrs.
Applied Music	4 hrs.
	<hr/> 16 hrs.

COURSES

301 FORM AND ANALYSIS IN MUSIC

3 sem. hrs.

Structure of classical music, ranging from simpler compositions as found in piano works to more elaborate material as found in major sonatas and symphonies.

305 COMPOSITION 3 sem. hrs.

Free composition in larger forms. Prerequisite: Consent of instructor. May be repeated for credit.

307 SURVEY OF MUSIC THEORY

2 sem. hrs.

A comprehensive review of analytical techniques and procedure. Emphasis will be on tonal music.

309 ADVANCED ORCHESTRATION

3 sem. hrs.

Review of instruments: ranges, timbres, technical difficulties and limitations. Arranging for combinations of instruments, full band and orchestra. Study of problems contained in standard repertory. Special attention to problems of school band and orchestra scoring. Prerequisite: Music 209 or consent of instructor.

330 PEDAGOGY AND LITERATURE

2 sem. hrs.

Methods of teaching, class and individual instruction; emphasis on technique and a comparison of various teaching procedures. Survey of important literature and composers of each medium (brass, woodwind, percussion, voice, strings, piano, organ). May be repeated for credit when subject matter varies. More than one area may be taken concurrently if subject matter varies.

331-338 APPLIED MUSIC

2-4 sem. hrs.

Individual instruction in brass, woodwinds. May be repeated for credit. Permission to enroll must be obtained from appropriate coordinator in the semester prior to the semester or summer session in which student expects to enroll.

340 INFLUENCE OF MUSIC UPON BEHAVIOR 3 sem. hrs.

A study of the various physiological effects of music. The relation of music and health in education, industry, and aesthetics. Prerequisite: Principles of Music Therapy I and II, Psychology 111 and 131, and Sociology 106.

341 MUSIC IN THERAPY

3 sem. hrs.

The application of music experience as an adjunctive therapy in the prescriptive treatment of the exceptional child, children and adults. Prerequisites: Principles of Music Therapy I and II, Influence of Music upon Behavior.

351 THE OPERA 3 sem. hrs.

Historical development of the opera with emphasis on stylistic elements and trends of various periods. Study of the plots and music through recordings, piano scores, full scores, as well as live performance. Prerequisite: Music 204 or consent of instructor.

353 HYMNOLOGY 3 sem. hrs.

Christian hymns from early Greek and Roman times. Various denominational hymnals are examined and evaluated.

354 SACRED MUSIC REPERTOIRE 2 sem. hrs.

Reading and evaluating choral literature of all periods, covering motets, anthems, plainchant, and responses for both adult and children's choirs. Attention is given to organ music, instrumental music, cantata and oratorio.

355 ELECTRONIC MUSIC 2 sem. hrs.

An analysis of the various techniques of composition in the electronic media with practical experiences with the variety of sound-generating equipment available to the composer. Prerequisite: Music 155.

357 MUSIC BIBLIOGRAPHY 3 sem. hrs.

Introduction to methods of research. Critical examination of dictionaries, encyclopedias, catalogs and other aids to research.

358 NOTATION 2 sem. hrs.

Black notation in Medieval music: square, pre-Franconian. Tabulatures and white notation in Renaissance solo and ensemble music.

360 PSYCHOLOGY OF MUSIC EDUCATION (formerly MUSIC 460) 3 sem. hrs.

Study of the psychology of music and the psychology of learning in relation to practical applications in music education.

**361 CURRENT TRENDS IN
INSTRUMENTAL MUSIC**

3 sem. hrs.

Administration and supervision of instrumental music in elementary and secondary schools, methods and materials in current use and current research related to instrumental music teaching.

363 CHORAL TECHNIQUES

2 sem. hrs.

Clinical aspects of the chorus rehearsal, contemporary choral practices, repertoire and source material. Interpretation and program building. Prerequisite: Course in conducting or practical experience.

371 MUSIC FOR THE EXCEPTIONAL

CHILD 3 sem. hrs.

Trends in musical education for exceptional children. Techniques and materials for a functional program of singing, playing, listening and creative activities based upon needs of the exceptional child.

**377 MUSIC EDUCATION IN THE
ELEMENTARY GRADES**

3 sem. hrs.

An advanced course dealing with the purposes, content, materials and teaching procedures in general music classes in elementary schools and including supervisory practices, in-service workshops and curriculum planning. Designed to meet the needs of elementary classroom teachers, music teachers and music supervisors. Students must have had a prior course comparable in content to Music 277 or Music 262.

384 OPERA PRODUCTION

3 sem. hrs.

Operas and musicals, including the problems of presenting high school and college productions. Members of the class participate in the production of an opera or musical. Prerequisite: Approval of Music Theatre Director.

**391 MUSICAL STYLES IN THE
RENAISSANCE 3 sem. hrs.**

A systematic survey of musical styles in the

mass, motet, madrigal, and other forms considered within the musical and cultural milieu of the time. Prerequisites: Music 204.

**392 MUSICAL STYLES OF THE BAROQUE
PERIOD 3 sem. hrs.**

An examination of the styles of the period, using the tools of analysis and of historical inquiry to trace the inception and development of musical forms, techniques, and traditions. Prerequisite: Music 204.

**394 MUSICAL STYLES IN THE CLASSICAL
PERIOD**

3 sem. hrs.

A detailed study of the forms and styles of the classical periods, including opera, oratorio, and mass as well as symphony, concerto, sonata, and string quartet. Prerequisite: Music 204.

**395 MUSICAL STYLES IN THE
ROMANTIC PERIOD**

3 sem. hrs.

A selective investigation of the stylistic and aesthetic bases of Romanticism as reflected in the major vocal and instrumental forms of the period. Prerequisite: Music 204.

**396 MUSICAL STYLES IN THE TWENTIETH
CENTURY**

3 sem. hrs.

An exploration of twentieth-century styles from traditionally-oriented to electronic and from totally serialized to aleatory. Prerequisite: Music 204.

402 FORM AND ANALYSIS IN MUSIC

3 sem. hrs.

Continuation of Music 301 with emphasis on harmonic structure.

404 CHROMATIC HARMONY

3 sem. hrs.

Practical experience in writing polyphonically and homophonically using various kinds of embellishments and chromatically altered tones. A major creative project is required. This may be in the form of an original composition, arrangements, or transcription.



431-438 APPLIED MUSIC

2-4 sem. hrs.

Individual instruction in brass, woodwinds, percussion, strings, voice, piano, organ, harpsichord, and harp. May be repeated for credit. Permission to enroll must be obtained from appropriate coordinator in the semester prior to the semester or summer session in which student expects to enroll.

439 ENSEMBLE 1 sem. hr.

Study and performance of chamber music in any suitable combination of instruments or voices. Permission to enroll must be obtained from appropriate coordinator in the semester prior to the semester or summer session in which student expects to enroll. Prerequisite: By tryout.

452 THE SYMPHONY 3 sem. hrs.

Survey of the symphony orchestra and symphonic literature from early eighteenth century to the present day. Study through recordings, orchestral scores and piano scores.

453 STUDIES IN MUSIC

3 sem. hrs.

Application of bibliographical skills to individualized research topics in music and music education. Students must complete Music 357 before enrolling in Music 453.

Prerequisite: Music 357 or consent of instructor.

454 HISTORY OF MUSICAL INSTRUMENTS

2 sem. hrs.

Evolution of musical instruments from the origins to the present, with particular regard to music and general culture. The development of primitive, Oriental and western instruments.

455 MUSIC IN AMERICA 3 sem. hrs.

Indigenous and borrowed influences in American music from the time of the early settlements through periods of expansion to present day activities. A background of American musical style and culture and an understanding of present trends are developed.

456 STUDIES IN SACRED MUSIC

3 sem. hrs.

Guided discussion and observation or practice in the field of sacred music with an emphasis on current trends. Attention is given to projects in research.

461 SEMINAR IN MUSIC EDUCATION

3 sem. hrs.

Study of aesthetic theory and educational theory in relation to current and persistent issues in music education.

464 PEDAGOGY OF THEORY

3 sem. hrs.

Analysis of current practices in the teaching of theory; techniques of teaching theory during the regular rehearsal of performing groups and an analysis of source material. The development of a practical course in theory as it relates to the student's own teaching situation. Prerequisite: Teaching experience or advanced standing in theory.

468 CONDUCTING 2 sem. hrs.

Critical examination of scores with reference to tempo, phrasing, nuance, balance, timbre, and baton techniques involved. For experienced teachers.

481-488 PERFORMING ORGANIZATIONS 1 sem. hr.

Participation at the graduate level in the major organizations: Concert or Varsity Band, 481; Symphony Orchestra, 482; Concert Choir, 484; Men's Glee Club, 485; Treble Choir, 486; Community-University Oratorio Chorus, 488.

491 INTERNSHIP IN COLLEGE TEACHING IN MUSIC

3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491.)

497 RESEARCH SEMINAR 3 sem. hrs.

Introduction to bibliography, methods of scholarly research and critical evaluation of research.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS **1-6 sem. hrs.**

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than

Political Science

Chairperson of the Department: Hibbert R. Roberts. Office: Schoeder Hall 306.

Teaching Staff: H. Chung, T. Eimmermann, G. Gordon, J. Gueguen, J. Honan, R. Hunt, W. Kohn, W. Mead, A. Monroe, F. Roberts, H. Roberts, J. Verner, H. Zeidenstein.

MASTER'S DEGREE IN POLITICAL SCIENCE

The department offers work leading to the following degrees: M.A., M.S. Students may take either a comprehensive program, which requires courses in five sub-fields, or a thesis program which requires courses in at least three sub-fields, or a public service option which requires courses in at least two sub-fields and a thesis.

COURSES

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

Intensive study of particular lands, environments, cultures, and peoples. Prerequisite: consent of instructor. Usually given cooperatively with other departments.

310 VOTING AND ELECTIONS

3 sem. hrs.

An examination of the electoral process, principally in the United States. At the levels of individual behavior, institutional process and system dynamics. The focus throughout the course will be on one of democratic theory, examining the question of

a total of six hours of 499, among the 32 required for the master's degree.

Physical Education

(See Health, Physical Education and Recreation)

whether election outcomes are relevant to public policy. Attention will be given to possible party realignments in the near future and to contemporary campaign methods.

312 PUBLIC OPINION 3 sem. hrs.

The study of public opinion as part of the political process. The formation, properties, and distribution of public opinion. Includes attitude formation, psychological processes, opinion change, mass media, measurement. Attention given to the relation of public opinion to the political decision-making process.

313 COLLECTIVE DECISION—MAKING **3 sem. hrs.**

A game theoretical analysis of coalition formation and decision-making in n-person groups. The context will be legislative bodies, but the essential notions apply to international relations, labor negotiations, oligopoly and complex organizations.

315 CONSTITUTIONAL LAW: **FUNCTIONS AND POWERS** **3 sem. hrs.**

An analysis of the Supreme Court as a legal and political decision maker. Landmark Supreme Court decisions are examined in light of the historical context in which the decision was reached and its political and social impact. The decisions to be emphasized are those dealing with federalism, separation of powers, taxation and the commerce clause.

316 CONSTITUTIONAL LAW: CIVIL LIBERTIES

3 sem. hrs.

Analysis and discussion of the leading Supreme Court decisions dealing with free speech and demonstrations, obscenity and censorship, the rights of persons accused of crime, freedom of religion, citizenship and the government's responsibility to protect persons from racial-religious discrimination.

317 POVERTY LAW

3 sem. hrs.

An examination of political and legal responses to the problems of the poor. Major legal innovations in landlord-tenant, consumer, and welfare rights are studied.

321 COMMUNITY POWER AND POLITICS

3 sem. hrs.

Introduction to community research techniques. Substantive analysis of community power studies. Emphasis on local government structure and politics and the structure and politics of community social services.

329 INTERGOVERNMENTAL RELATIONS

3 sem. hrs.

A systematic analysis of the relations of the various governments of the American federal system from the perspectives of each level, with emphasis on current conflicts and developments and possible future trends.

330 PROBLEMS OF PUBLIC

ADMINISTRATION 3 sem. hrs.

Consideration of issues and problems of current interest in the field of public administration. This course is intended to provide work for undergraduates and also to serve as an introduction to the field for graduate students without previous training in public administration.

331 PUBLIC PERSONNEL ADMINISTRATION

3 sem. hrs.

A detailed examination of the personnel process

in modern government: values and personnel administration; the merit system; personnel procedures, such as recruitment, classification, pay, promotion, collective negotiation, employee protection; organization of the personnel agency; human relations in public administration.

344 POLITICAL DEVELOPMENT AND NATION BUILDING

3 sem. hrs.

An analysis of the changing nature of newly industrializing societies with discussion and evaluation of major social and psychological theories of political change and political development. There are no prerequisites, but since theories of social and political change will be stressed, at least some familiarity with the history and politics of some of the newly industrializing societies would be useful to the student.

345 ASIAN POLITICS

3 sem. hrs.

Government and politics of selected Asian nations with special focus on the historic roots of contemporary politics and on the problems of establishing effective and stable political communities under conditions of scarcity and ideological conflict. If different material is covered, the course may be repeated.

346 CENTRAL AMERICAN POLITICS

3 sem. hrs.

A description and analysis of the political systems of Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama from a political development perspective.

347 SOUTH AMERICAN POLITICS

3 sem. hrs.

A description and analysis of the political systems of the South American continent from a political development perspective.

348 VIOLENCE AND MODERNIZATION

3 sem. hrs.

The nature and antecedents of major "breakdowns" in the modernization process in the

newly industrializing states. Attention will be directed both at the implications of violence for long run change and development and at developing general explanations for a wide range of violent acts, insurrectionary movements and civil war.

351 INTERNATIONAL LAW

3 sem. hrs.

An introductory survey of the political foundation, principles, basic structure and problems of international law with an emphasis on its function in the contemporary international relations.

354 SOVIET FOREIGN POLICY

3 sem. hrs.

An introduction to the formulation and execution of Soviet foreign policy in the modern world.

356 AMERICAN FOREIGN POLICY

3 sem. hrs.

An introduction to the formulation and execution of American foreign policy in the modern world.

362 CLASSICAL POLITICAL PHILOSOPHY

3 sem. hrs.

A survey and analysis of ancient and medieval philosophy to the sixteenth century. First half of the course concentrates on the political philosophy of Plato.

363 AMERICAN POLITICAL THEORY

3 sem. hrs.

An analysis of theories of political systems and political behavior represented by contemporary American scholars, normative and behavioral. A previous exposure to theoretical and analytic inquiry is assumed.

364 CONTEMPORARY POLITICAL THOUGHT

3 sem. hrs.

Survey of major political theories between the end of the nineteenth century (since Marx) and the present.

381 INTRODUCTION TO PARALEGALISM

3 sem. hrs.

Consent of instructor. An analysis of the role of

paralegals in the judicial process, and a study of the paralegal skills necessary to qualify for participation in Political Science 391.

390 PUBLIC SERVICE INTERNSHIP

1-6 sem. hrs.

Supervised work in an activity that will provide practical governmental and/or political experience under the guidance of a person in the field. Internships are arranged, approved and supervised by faculty and the cooperating agency or individual. On faculty approval student arranged internships are permitted. Prerequisite: Consent of instructor.

391 PARALEGAL INTERNSHIP

1-6 sem. hrs.

May be repeated. Maximum 6 hours. The course provides field experience for students working in internships involving paralegal skills. Prerequisite: Political Science 381 and consent of instructor.

SEMINARS

The content of the following seminars will vary according to the interests of the particular instructor offering the course. Provided different material is covered, a seminar may be repeated. Examples of topics offered under these titles are: 411—American Presidency and 411—Games and Simulations.

411 SEMINAR IN AMERICAN POLITICS

3 sem. hrs.

421 SEMINAR IN STATE AND LOCAL POLITICS

3 sem. hrs.

422 SEMINAR IN URBAN POLITICS

3 sem. hrs.

431 SEMINAR IN PUBLIC ADMINISTRATION

3 sem. hrs.

432 SEMINAR IN JUDICIAL POLITICS

3 sem. hrs.

441 SEMINAR IN COMPARATIVE POLITICS 3 sem. hrs.

451 SEMINAR IN INTERNATIONAL RELATIONS 3 sem. hrs.

452 SEMINAR IN INTERNATIONAL ORGANIZATIONS AND LAW 3 sem. hrs.

461 SEMINAR IN POLITICAL THOUGHT 3 sem. hrs.

490 READINGS IN POLITICAL SCIENCE 1-3 sem. hrs.

For the student who would benefit from more specialized or independent study adapted to his background and needs. To be taken only with permission of the student's advisor.

491 INTERNSHIPS IN COLLEGE TEACHING IN POLITICAL SCIENCE 3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

497 SEMINAR IN METHODOLOGY 3 sem. hrs.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

Psychology

Chairperson of the Department: Walter H. Friedhoff. Office: 435E DeGarmo Hall.

Teaching Staff: L. Berk, R. E. Brown, D. Carrington, V. Cashen, P. Chesebro, H. Clark, R. Crist, E. Fitzpatrick, W. Friedhoff, N. Gamsky, N. Gill, W. Gnagey, B. Goebel, M. Goldstein, A. Grupe, R. Hogan, S. Hutter, I. Jacks, J. Johnson, D. Lamb, K. Leicht, E. Lemke, M. Lewis, G. McCoy, D. McGrath, B. Moore, D. Pollack, G. Ramseyer, G. Redding, R. Rumery, L. Schmaltz, D. Schmidt, R. Silver, W. Vernon, M. Vinitsky, J. Williams, M. Williams.

The department offers the M.A., M.S., and M.S. in Ed. degrees in School Psychology and the M.A. and M.S. in Psychology. Requirements for the master's program are as follows:

PSYCHOLOGY

The following courses are required for a master's degree in Psychology: Psychology 418, 420, 440 or 442. In addition three of the following courses will be required: Psychology 301 or 302, 320, 350, 352, 361, and 363. Other courses may be required depending on

the area of concentration the student selects and depending on the student's background. Areas of concentration available to students are: General Psychology (within this area students can pursue areas, e.g., experimental, measurement and statistics in the behavioral sciences, educational psychology, etc.), Clinical Psychology, Counseling Psychology, and School Psychology. (In Clinical and Counseling Psychology the primary emphasis is upon the training of skilled professionals. The area requires essentially two years to complete, with the first year devoted to basic course work, and the second year reserved for a two-semester practicum experience and further advanced course work.)

University requirements for the master's degree are listed elsewhere in this catalog. However, the departmental requirements for admission to a degree program in psychology are somewhat higher than those for the University at large. Because of the nature of the courses, admission to the professional courses and practica in the Counseling, Clinical, and School Psychology areas is granted only to degree candidates with the permission of the instructor. These courses are 432, 433, 435, 436 and 437.

SCHOOL PSYCHOLOGY

The following courses are required for a master's degree in School Psychology: Psychology 418, 420, 440 or 442. In addition three of the following courses will be required: Psychology 301, 302, 320, 350, 361, 363 or 452. In addition to the requirements indicated above, those students in School Psychology are required to complete the following courses unless they have been completed at the undergraduate level: Psychology 334, 347, 421, 432, 433, 436 and 464. (The State of Illinois requires that students wishing to be certified as School Psychologists complete the following general requirements: 56 semester hours of psychology at the undergraduate and graduate level, a master's degree in psychology or educational psychology and a one year internship). Depending on the student's background other courses may be required for the master's degree.

COURSES

301 DEVELOPMENTAL PSYCHOLOGY I

3 sem. hrs.

Motor, cognitive, and emotional development and personality growth of children, birth through pre-adolescence. Prerequisite: Psychology 111.

302 DEVELOPMENTAL PSYCHOLOGY II

3 sem. hrs.

Motor, cognitive, and emotional development and personality growth of the adolescent. Prerequisite: Psychology 111.

305 PSYCHOLOGY OF WOMEN

3 sem. hrs.

An examination of psychological research to place in scientific perspective the etiology and behavioral consequences of female and male-oriented attitudes. Prerequisite: Psychology 111.

320 HISTORY AND SYSTEMS OF

PSYCHOLOGY 3 sem. hrs.

Historical antecedents of modern psychology, beginning with Aristotle. Examination of modern psychology from a systematic point of view. Prerequisite: 12 semester hours of Psychology.

330 EXPERIMENTAL PSYCHOLOGY I

3 sem. hrs.

Philosophy of science and inquiry, with emphasis on experimental methodology and some application of principles through laboratory experimentation and demonstrations. Prerequisite: Psychology 111. Concurrent registration in Psychology 340 is recommended.

331 STUDIES IN EXPERIMENTAL PSYCHOLOGY

3 sem. hrs.

Individualized research course focusing on particular content areas. Sections concentrate in different areas. Repeatable but not in the same content area. Prerequisites: Psychology 330, 340 or consent of instructor.

333 EXPERIMENTAL ANALYSIS OF BEHAVIOR 3 sem. hrs.

Factors influencing various behavior patterns, emphasizing the literature of laboratory experimentation with human and animal subjects. Prerequisite: Psychology 111.

334 PSYCHOLOGICAL MEASUREMENT

3 sem hrs.

Selection and interpretation of psychological tests, with emphasis on basic theory. Tests are considered as indicators of constructs and or in decision situations. Prerequisite: Psychology 111.

335 INTRODUCTION TO MATHEMATICAL PSYCHOLOGY 3 sem. hrs.

Role of mathematics in psychological theory. Application of mathematical models in measurement, learning, perception and choice. Prerequisites: Psychology 111 and Mathematics 110 or 120.

340 STATISTICS I 3 sem. hrs.

Application and interpretation of basic statistics used in the behavioral sciences: Descriptive statistics, simple hypothesis testing and two-variable regression. Prerequisite: Psychology 111 or Sociology-Anthropology 106.

346 PSYCHOLOGY OF EXCEPTIONAL CHILDREN 2 sem. hrs.

Intellectual, emotional, physical, or social deviations in individuals which create a need for modifications in their education, training and/or treatment. Prerequisite: Psychology 301 or 302, Curriculum and Instruction 210 or consent of instructor.

347 BEHAVIOR DISORDERS IN CHILDREN 3 sem. hrs.

Medical, psychological, sociological aspects of behavioral disorders of children. Prerequisite: Psychology 111.

348 MENTAL RETARDATION 3 sem. hrs.

Medical, psychological and sociological characteristics and behavior of the mentally retarded. Methods of classification, causes and rehabilitative aspects. Prerequisite: Psychology 215 or Curriculum and Instruction 210.

350 PSYCHOPATHOLOGY 3 sem. hrs.

Behavior disorders; neuroses, psychoses, character disorders, mental deficiencies, and other psychopathological conditions. Prerequisite: 12 semester hours of Psychology.

352 HUMAN ABILITIES 3 sem. hrs.

Nature, assessments and organization of human abilities. Empirical and theoretical analysis of genetic and environmental factors in development of abilities. Prerequisite: Psychology 334.

360 LEARNING 3 sem. hrs.

Experimental data bearing on the problem of human learning; learning theory; learning data and theory in relation to the problems of the teacher. Prerequisite: Psychology 111.

361 PERCEPTION 3 sem. hrs.

Cognitive processes and their relationship to other processes. Relationship and sensation, attention, and memory to perception and factors influencing perception. Prerequisite: Nine Semester Hours of Psychology.

363 PHYSIOLOGICAL PSYCHOLOGY 3 sem. hrs.

Neurophysiological and biochemical substrates of behavioral processes including sensori-motor, perceptual, motivational, emotional, and intellectual behaviors. Prerequisites: Nine semester hours of Psychology and Biology 100.

364 MOTIVATION 3 sem. hrs.

Evolution of basic concepts leading to contemporary explanation of determiners of action with application to vocational, social and educational areas. Prerequisite: Nine semester hours of Psychology.

365 DYNAMICS OF SOCIAL BEHAVIOR 3 sem. hrs.

An overview of the explanations for various aspects of social behavior, e.g., interaction, attitudes, person perception, etc. Prerequisite: Psychology 131.

416 ADVANCED EDUCATIONAL PSYCHOLOGY 3 sem. hrs.

Learning retention and forgetting, transfer of training, individual differences, intelligence, language, social class influences and mental health as they pertain to education. Prerequisite: Psychology 215 or Curriculum and Instruction 102.

418 THEORIES OF LEARNING 3 sem. hrs.

A consideration of the major contemporary learning theories and their relationship to experimental data. Prerequisite: Psychology 330 or 360.

420 THEORIES OF PERSONALITY 3 sem. hrs.

Analysis of major theoretical formulations concerning personality with emphasis upon their current status and evidential bases.

421 BEHAVIOR MODIFICATION 3 sem. hrs.

Techniques for changing behavior through manipulation of environment. General principles of conditioning plus their application to patterns of

problem behavior. Prerequisite: Psychology 333, 350, or 464 or consent of instructor.

422 PRACTICUM: BEHAVIOR MODIFICATION

3 sem. hrs.

Conditioning techniques under controlled conditions with students personally disturbed by minor behavior problems. Methods for assessing the effectiveness of the techniques. Prerequisites: Psychology 421 and consent of instructor.

432 PSYCHODIAGNOSTICS I 3 sem. hrs.

Theory of and training in individual mental testing with emphasis on the Binet and the Wechsler tests. Prerequisites: Psychology 350 or concurrent registration and consent of instructor.

433 PSYCHODIAGNOSTICS II 3 sem. hrs.

Theory of projective methods and development of competence in the use of selected procedures. Prerequisites: Psychology 432 and consent of instructor.

434 PSYCHODIAGNOSTICS III

3 sem. hrs.

Multidimensional approaches to personality assessment, with emphasis on the Rorschach test. Prerequisites: Psychology 433 and consent of instructor.

435 DIAGNOSTIC PROCEDURES

3 sem. hrs.

Emphasis is on the assessment, diagnosis and remediation of learning disabilities with particular stress on a psycholinguistic approach. Prerequisites: Graduate standing in Psychology and consent of instructor.

436 PRACTICUM 1-8 sem. hrs.

Clinical practice in university facilities and outside agencies. Provides training and diagnosis and treatment. Fifteen hours per week. Prerequisites: Clinical & Counseling: Psychology 432 and 464 and consent of instructor; School: Psychology 432, 433 and 435 and consent of instructor. May be repeated to a total of eight semester hours.

437 GROUP PSYCHOTHERAPY AND COUNSELING 3 sem. hrs.

Theory and research in group dynamics, techniques of group therapy and counseling. Methods of evaluating groups, direct experience as group member and group leader. Prerequisites: Psychology 464 and consent of instructor.

438 TECHNIQUES OF OBJECTIVE PSYCHOLOGICAL ASSESSMENTS

3 sem. hrs.

Clinical application of representative techniques of objective measurement. Selection, integration, and interpretation of tests will be included. Prerequisites: Psychology 334 and consent of instructor.

440 STATISTICS II 3 sem. hrs.

Logic of statistical inference: Interval estimation, complex hypothesis testing, and nonparametric techniques. Applications in behavioral sciences. Prerequisite: Psychology 340.

441 EXPERIMENTAL DESIGN

3 sem. hrs.

Statistical principles of experimental design; selection, analysis, and interpretation of Analysis of Variance and Covariance designs in the behavioral sciences. Prerequisite: Psychology 440.

442 TEST THEORY 3 sem. hrs.

Theory and principles of test reliability and validity, topics in test theory, statistical procedures applicable to psychometric methods. Prerequisites: Psychology 334 and 340.

444 MULTIVARIATE ANALYSIS

3 sem. hrs.

Topics covered include basic matrix algebra and linear transformations, analysis of covariance with multiple covariates, multivariate significance tests of group differences, discriminant analysis, multivariate analysis of variance. Prerequisite: Psychology 441.

464 THEORIES AND TECHNIQUES OF COUNSELING

3 sem. hrs.

Goals, methods and procedures of different

theoretical positions. Emphasis is on interpersonal dimensions of the counseling interview.

465 VOCATIONAL COUNSELING

3 sem. hrs.

Acquiring and using occupational and educational information. Consideration of job requirements and training opportunities; developing occupational units; nature of vocational development.

470 CLINICAL PSYCHOLOGY

3 sem. hrs.

Traces history and philosophy of profession from assessment, psychotherapeutic and research traditions. Prerequisite: Graduate standing in Clinical, Counseling or School Psychology or consent of instructor.

480 SEMINAR IN PSYCHOLOGY

2-3 sem. hrs.

Permission of the instructor.

481 COMMUNITY MENTAL HEALTH

3 sem. hrs.

Social systems as they affect individual mental health. Conceptual models, typical programs, methods of analyzing communities, and methods for designing community mental health programs. Prerequisite: Psychology 350.

491 INTERNSHIP IN COLLEGE TEACHING OF PSYCHOLOGY

3 sem. hrs.

Credit for this course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

Sociology-Anthropology

Acting Chairperson of the Department:

Edward Jelks. Office: Schroeder Hall 206.

Teaching Staff: P. Baker, J. Berry, A. K. Clifton, F. J. Davis, R. Dirks, D. Eaton, M. Ferrell, C. T. Griffen, S. Grupp, L. Huang, E. Jelks, B. Keeley, D. Lee, W. Leonard, M. Moran, V. Pohlmann, M. Pratt, J. Reyman, R. Schmitt, R. Stivers, S. Thomas, W. Tolone, R. Walsh.

MASTER'S DEGREE IN SOCIOLOGY

The department offers work leading to the following degrees in sociology: M.A., M.S. The 32 hours of graduate work includes five hours of Thesis. Specific course requirements are Sociology 466 (Seminar in Sociological Theory), Sociology 497 (Seminar in Sociological Research), and three hours of Sociological Statistics. University requirements for the master's degree are listed elsewhere in this catalog. Entering students should have 12 semester hours (or the equivalent) in Sociology-Anthropology.

COURSES IN ANTHROPOLOGY

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered. Prerequisite: Consent of instructor.

380 KEY CONCEPTS IN ANTHROPOLOGY

3 sem. hrs.

Seminar on development of anthropological thought from historical, systematic and applied viewpoint; emphasis on changing content, concepts, methods and organization of the discipline. Prerequisite: Anthropology 180, 182, or 183 or consent of instructor.

381 ECONOMIC ANTHROPOLOGY

3 sem. hrs.

Theoretical and methodological approaches to the study of non-Western economic systems. Students will read widely in the ethnography of non-Western economic systems, and class sessions will center on critical discussion of materials read. Prerequisite: Anthropology 180.

382 THE AMERICAN INDIAN

3 sem. hrs.

Analysis of the social, economic, religious, and artistic developments of various representative American Indian societies. Environmental and historical factors shaping these ways of life; particular attention to Indians as they are today—their reservation cultures, the federal policies toward them, and their future prospects. Prerequisite: Anthropology 180.

383 SELECTED STUDIES IN

CULTURE AREAS 3 sem. hrs.

Concentrated study of cultural patterns of selected areas. Introduction to the physical characteristics and history of the aboriginal peoples and study of their social, political, and intellectual life. An analysis of the dynamics of culture change together with the human problems resulting from these changes. Prerequisite: Anthropology 180.

384 AFRO—AMERICAN ADAPTATIONS

3 sem. hrs.

A comparative study of Afro-American populations in a variety of ecological niches throughout the New World. The styles, strategies, and traditions of Afro-America, both historical and contemporary, are described and analyzed with reference to tribal, peasant, and proletarian communities. Prerequisite: Anthropology 180.

385 POLITICAL ANTHROPOLOGY 3 sem. hrs.

The multiplex nature of political systems is emphasized. Comparative data drawn from private behavior, tribal societies, and non-Western states analyzed from several theoretical perspectives. Prerequisite: Anthropology 180.

386 CULTURES OF SOUTHEAST ASIA

3 sem. hrs.

Formerly Sociology-Anthropology 284. Patterns of prehistory, history, economics, religion, and daily life in Southeast Asia. Prerequisite: Sociology-Anthropology 180.

388 HISTORICAL ARCHAEOLOGY

3 sem. hrs.

Research methods of historical archeology reviewed, and the principles that underlie the methods examined critically. A local historic site is thoroughly studied as a class project. Prerequisite: Sociology-Anthropology 183 or consent of instructor.

COURSES IN SOCIOLOGY

323 CHILD WELFARE SERVICES

(formerly Social Work III—Child Welfare Services)

3 sem. hrs.

Examination of policies, personnel, facilities, and practices for the care of dependent, neglected, delinquent, physically-handicapped, and mentally-retarded children. Consideration given to adoptive procedures, foster-home placements, probation, parole, and vocational placements. Prerequisite: Introduction to Social Work 221 or Special Education major. It is recommended that this course be taken before Sociology 368 if the student wishes placement in a child serving agency.

324 GROUP WORK AND COMMUNITY WORK

3 sem. hrs.

The study of some concepts, methods, skills, values and problems relevant to an associate level of social work practice in community work and group work. Prerequisite: Sociology 221.

325 SOCIAL WORK METHODS

3 sem. hrs.

A generic approach to agency practice preparatory to field work placement. Developing interviewing skills, use of socio-drama, transitional handling of field work assignments, case termina-



tion, case assessment as to progress or case blockage and confidentiality of records. Prerequisite: Sociology 221 and consent of social work coordinator.

332 SMALL GROUPS 3 sem. hrs.

Study of the structure and functioning of small human groups. Special attention to conditions affecting interaction in small groups, the small group as an ongoing social system, and products of interaction in a small group. Limited research project. Prerequisite: Sociology 131 or Psychology 131.

333 SOCIALIZATION OF THE INDIVIDUAL 3 sem. hrs.

A sociological social psychological approach. Childhood and adulthood socialization are examined from the perspectives of symbolic interactionism, role theory, reference group theory, and self theory. Pragmatic implications are considered. Prerequisite: Sociology 106 or Psychology 111.

340 STATISTICS I 3 sem. hrs.

Basic statistics used in education and the behavioral sciences. Intensive study of frequency distributions, measures of central tendency and dispersion, and standard scores. Sampling error theory, simple hypothesis testing, correlation techniques, and regression analysis are also covered. The emphasis is on application and interpretation. Prerequisite: Sociology 106 or Psychology 111. Also offered as Curriculum and Instruction 340 and Psychology 340.

341 SOCIOLOGY OF SEX ROLES

3 sem. hrs.

Application of culture concepts, status, role and self concepts, and socialization concepts toward the explanation of sex differences in social behavior. Institutionalized and social change processes are examined. Prerequisite: Sociology-Anthropology 106 or Psychology 111.

342 HUMAN SEXUALITY

3 sem. hrs.

The sociological, psychological, and physiological aspects of human sexuality. Societal norms and values; female-male attitudes; actual

behavior; variance and disorders; myths and fallacies. Prerequisite: Sociology-Anthropology 106 or Psychology 111.

350 SOCIOLOGY OF EDUCATION

3 sem. hrs.

The analysis of education systems using a sociological perspective, theory and research. Relationship of the educational system to other institutions in the society, its organizational characteristics, and social factors influencing behavior of students. Prerequisite: Sociology 106.

365 JUVENILE DELINQUENCY

3 sem. hrs.

Delinquency as a social and legal problem; theories of delinquency, causation; the juvenile court; prevention and treatment. Prerequisite: Sociology 263.

366 CONTEMPORARY SOCIAL MOVEMENTS

3 sem. hrs.

Analysis of social unrest as indicative of social disorganization; patterns of collective behavior; structure and functions of social movements. An examination of various types of social movements—religious, political, revolutionary, youth, agrarian, and reform. Analysis of morale, strategy, types of leaders, and control mechanisms. Prerequisite: Sociology 106.

367 CRIMINOLOGY 3 sem. hrs.

Criminological theory and practice. Crime as a social and legal problem. Problems in the administration of justice. Prerequisite: Sociology 263.

368 SOCIAL WORK FIELD INSTRUCTION

3-10 sem. hrs.

Supervised field instruction and practice in social work methods with individual, groups, and communities in a social welfare agency. Prerequisites: Sociology 221, 325. Concurrent enrollment in Sociology 323 permitted with consent of social work advisor only. Formerly Social Work Intervention Methods.

369 SOCIAL CHANGE

3 sem. hrs.

An investigation of social change theory; case studies of change in developing societies undergoing "modernization"; the dynamics and consequences of planned social change. Prerequisite: Sociology-Anthropology 106 or consent of instructor.

370 HISTORY OF SOCIOLOGICAL THOUGHT

3 sem. hrs.

Analysis and appraisal of classical works in sociology from Comte to the early twentieth century. Such men as Weber, Durkheim and Marx will be discussed. Prerequisite: Sociology 106.

371 INTRODUCTION TO SOCIOLOGICAL RESEARCH

3 sem. hrs.

A one-semester introduction to sociological research focusing on the convergence of theory and research in sociology; the design of inquiry conceptualization and measurement of social variable, collection of data, analysis and interpretation of data. Emphasis is upon the survey design. Individual and collective research projects form a part of the course. Prerequisite: Sociology 106 or Political Science 105.

410 SOCIOLOGY OF URBAN AREAS

3 sem. hrs.

Analysis of current theory and research in urban sociology; application to current issues in urban areas.

431 ADVANCED SOCIAL PSYCHOLOGY

3 sem. hrs.

Intensive study of a major sub-area of social psychology. Socialization, social role theory, self theory, collective behavior, attitude formation and measurement.

461 READINGS IN SOCIOLOGY AND ANTHROPOLOGY

1-3 sem. hrs.

A course for the graduate student who would benefit more from a specialized independent type of study adapted to his background and needs. To be taken by permission of the department chairperson and the instructor involved.

465 SOCIOLOGY OF FORMAL ORGANIZATIONS

3 sem. hrs.

Analysis of the theory of social groups with special emphasis on formal, complex, and bureaucratic organizations; emergence of informal patterns.

466 SOCIOLOGICAL THEORY

3 sem. hrs.

An analysis of recent theoretical developments in sociology. Attention will focus on a variety of social theories found useful in explaining social phenomena.

467 SOCIOLOGY OF LAW

3 sem. hrs.

Sociological theories of law, and research on law in society. Attention to judicial and jury decision-making, legal structures, legislation, power, beliefs, conflict, and social change. Public, civil and criminal law included.

469 SEMINAR IN SOCIOLOGY

3 sem. hrs.

Advanced study for graduate students interested in developing theoretical models or in special research topics in sociology. Provided different material is covered, the course may be taken for credit more than once.

491 INTERNSHIP IN COLLEGE TEACHING OF SOCIOLOGY—ANTHROPOLOGY

3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see Curriculum and Instruction 491).

497 RESEARCH SEMINAR

3 sem. hrs.

Introduction to bibliography, methods of scholarly research and the critical evaluation of research in the field. Must be taken by first year graduate students unless the department requires Curriculum and Instruction 475. May be repeated by more advanced students who desire direction and constructive criticism as they pursue special research problems.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-5 sem. hrs.

A student must take five hours of 499. While registration beyond five hours may be permitted for the convenience of the student, he may not count

more than a total of five hours of 499 among the 32 required for the master's degree.

Spanish (See Foreign Languages)

Special Education

Chairperson of the Department: Harold R. Phelps. Office: Fairchild Hall 103.

Teaching Staff: E. Bauer, K. Beckman, J. Bommarito, M. Bowen, T. Caldwell, A. Diaz, G. Fergen, D. Hage, R. Hemenway, H. Phelps, S. Price, E. Rex, K. Stearns, V. Tasker.

PROGRAMS OFFERED

Graduate work for the master's degree is offered in the following areas of specialization: Deaf and Hard of Hearing, the Maladjusted, Mentally Retarded, Visually Impaired, and Physically Handicapped. Program requirements are as follows:

1. At least 12 semester hours in Curriculum and Instruction and Psychology are required, including Curriculum and Instruction 475 and Psychology 301.
2. Additional courses are selected following recommendations of the chairperson, Department of Special Education with reference to areas of specialization.

A program in educational administration and special education is offered in cooperation with the Department of Educational Administration. Consult the chairperson of either department for details of the program.

COURSES

301 LABORATORY READING METHODS **3 sem. hrs.**

Techniques of diagnosis and instruction for special cases of severe reading disability. Prerequisite: Curriculum and Instruction 220. Three double periods per week.

307 EMPLOYMENT ANALYSIS FOR THE EXCEPTIONAL 3 sem. hrs. (See Industrial Technology 307).

345 SPECIAL CLASSES FOR THE TRAINABLE 3 sem. hrs.

Organization of education programs for trainable mentally retarded. Observation and participation.

346 EDUCATION FOR THE MENTALLY RETARDED 4 sem. hrs.

Objectives, curriculum and methods for educable mentally retarded. Observation and participation.

347 EDUCATION OF THE NEUROLOGICALLY IMPAIRED 2 sem. hrs.

Educational adjustments for children with severe learning problems and/or perceptual dysfunction. Observation and participation.

348 EDUCATION OF GIFTED CHILDREN 2 sem. hrs.

Characteristics and methods of identification of gifted. Emphasis on educational provisions and programs.

349 EDUCATION OF PHYSICALLY HANDICAPPED 2 sem. hrs.

Educational programs for crippled and other health impaired children. Prerequisite: Biological Sciences 381 or consent of department chairperson. Observation and participation.

350 INTRODUCTION TO VISUAL HANDICAPS

3 sem. hrs.

Nature and needs of the visually handicapped—infants to adults. Physical, sociological, and psychological aspects of visual handicaps.

351 EDUCATION OF THE VISUALLY HANDICAPPED

3 sem. hrs.
Educational needs of the visually handicapped. Curricular adaptations. Methods and materials of instruction. Prerequisite: Special Education 350.

352 BRAILLE READING AND WRITING I

3 sem. hrs.

Designed to develop mastery of braille literary code. Use of the braille writer and other devices for writing.

353 EDUCATION OF THE DEAF

2 sem. hrs.

Psychological, social, and learning problems relating to education of the deaf and hard of hearing.

354 THE TEACHING OF SPEECH TO THE DEAF

4 sem. hrs.

Methods of developing speech in the preschool and school age deaf child. Prerequisite: Special Education 353. Observation and participation.

355 THE TEACHING OF LANGUAGE TO THE DEAF

4 sem. hrs.

Principles and techniques of teaching language to preschool and school age deaf children. Prerequisite: Special Education 353. Observation and participation

356 BRAILLE READING AND WRITING II

3 sem. hrs.

Designed to develop mastery of the braille mathematic code and materials format code. Prerequisite: Special Education 352.

357 PRACTICUM IN CLINICAL TEACHING

3 sem. hrs.

Techniques in diagnosing and remediation of

learning disabilities. Prerequisite: Permission of instructor. Observation and participation.

358 EDUCATION OF THE SOCIALLY AND EMOTIONALLY DISTURBED

2 sem. hrs.

Types of educational facilities, methods and materials, identification and classification of disturbed children. Theories and methods of behavioral management. Prerequisite: Psychology 347.

359 THE TEACHING OF READING AND ELEMENTARY SCHOOL SUBJECTS TO THE DEAF

4 sem. hrs.

Teaching reading to deaf at all elementary school levels. Methods of teaching subjects: arithmetic, social studies and science. Prerequisite: Special Education 353.

360 ORIENTATION AND MOBILITY FOR CLASSROOM TEACHERS

2 sem. hrs.

Practicum in basic daily living skills and rudimentary mobility techniques.

399 STUDENT TEACHING

1-10 sem. hrs.

401 ANALYSIS AND CORRECTION OF READING DISABILITY

3 sem. hrs.

Differentiated reading programs based on test findings. Opportunities provided for administering informal and standardized instruments to determine types of reading disability. Prerequisites: Curriculum and Instruction 220 and Special Education 301.

420 SEMINAR IN DIAGNOSIS AND CORRECTION OF READING DISABILITIES

3 sem. hrs.

Causes and remediation of reading disabilities. Research findings utilized for suggested diagnosis and correction of various types of reading problems. Prerequisite: Special Education 301 or 401.

430 WORKSHOP IN EDUCATION

2-6 sem. hrs.

(See Curriculum and Instruction 430).

431 INDIVIDUALIZED FIELD WORK IN EDUCATION 2-3 sem. hrs.

(See Curriculum and Instruction 431).

445 CURRICULUM DEVELOPMENT FOR THE MENTALLY RETARDED 3 sem. hrs.

Designed to aid students in the development of curriculum and methods suited to the particular problems of the mentally retarded.

446 SEMINAR IN SPECIAL EDUCATION AND REHABILITATION 2 sem. hrs.

Exploration of various problems in the areas of special education and rehabilitation. Opportunities to develop program models or research designs for handicapped.

447 COORDINATING EDUCATIONAL PROGRAMS FOR EXCEPTIONAL CHILDREN 2 sem. hrs.

Principles and problems involved in administration of educational programs for exceptional children.

448 INSTRUCTIONAL PROCEDURES FOR EMOTIONALLY DISTURBED PUPILS 3 sem. hrs.

Organizing and administering laboratory procedures for maladjusted and educationally retarded pupils. Research pertaining to personality factors as related to school success. Prerequisites or concurrent registration: Curriculum and Instruction 220 and Special Education 301.

498 INTERNSHIP 3-8 sem. hrs.

(See Curriculum and Instruction 498)

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS 1-6 sem. hrs.

Four to six hours required in the thesis option. Registration beyond six hours permitted but not counted toward the degree.

Speech Communication (See Information Sciences)

Speech Pathology and Audiology

Chairperson of the Department: Martin A. Young. Office: Fairchild Hall 204.

Teaching Staff: M. Brunt, L. Hulit, B. Hutchinson, J. LaBelle, D. Richards, J. Tannahill, M. Young.

The department offers work leading to the M.A., M.S., or M.S. in Ed. degrees with emphasis in speech pathology or audiology. In addition to the general requirements of the Graduate School, the candidate for the master's degree in speech pathology and audiology must meet the academic requirements for clinical certification by the American Speech and Hearing Association. These requirements presume a well-integrated undergraduate and graduate program that includes 12 semester hours in courses that provide fundamental information applicable to the normal development and use of speech, hearing, and language and 48 semester hours in courses that provide information about and training in the management of speech, hearing, and language disorders and that provide information supplementary to these fields. Master's degree students are required to take Speech Pathology and Audiology 398. Certification by the American Speech and Hearing Association requires the completion of 300 clock hours of supervised, direct clinical experience with individuals presenting a variety of disorders of communication. Certification for the public schools of Illinois also requires a master's degree, at least 66 semester hours of related undergraduate and graduate course work and 300 clock hours of supervised clinical experience, including Student Teaching 399.

COURSES

311 PHONETICS 3 sem. hrs.

Sound system of American speech. Standard and

non-standard variations. Articulatory and acoustic considerations. Practice in transcribing and reading phonetic symbols.

316 INTRODUCTION TO ORGANIC DISORDERS OF SPEECH

3 sem. hrs.

Speech disorders related to structural, neurological and endocrine pathologies. Diagnostic and remedial procedures. Prerequisite: Speech Pathology and Audiology 215.

317 PRACTICUM IN SPEECH PATHOLOGY

½-1 sem. hr.

Approximately 45 hours of supervised clinical practice for each semester hour. Prerequisites: Speech Pathology and Audiology 215 and 311 and consent of instructor. May be repeated for maximum of 2 hours.

318 ORGANIZATION OF SPEECH, HEARING AND LANGUAGE PROGRAMS 3 sem. hrs.

Professional attitudes, ethics, and organizations. Setting up and maintaining programs. Evaluation, therapy techniques, materials applicable to school settings. Relationships to school and community agencies. Prerequisite: Consent of instructor.

319 STUTTERING I 3 sem. hrs.

Nature and history of the problem. Current models of onset, development and management. Prerequisite: Speech Pathology and Audiology 215 or consent of instructor.

320 SPEECH AND LANGUAGE DEVELOPMENT 3 sem. hrs.

Comprehensive study of acquisition of speech and language by children. Emphasis on first six years.

350 AUDIOLOGY I 3 sem. hrs.

Principles of hearing measurement: sound, human ear, test methods, hearing losses, screening methods, test interpretation.

351 SPEECH READING AND AUDITORY TRAINING 3 sem. hrs.

Principles of habilitation/rehabilitation of communication disorders related to hearing impairment. Visual/auditory speech signals. Amplification: function/use.

352 PRACTICUM IN SPEECH READING AND AUDITORY TRAINING

½-1 sem. hr.

Approximately 45 hours of supervised clinical practice for each semester hour. Prerequisite: Speech Pathology and Audiology 351. May be repeated for maximum of 2 hours.

357 PSYCHOLOGICAL IMPLICATIONS OF HEARING IMPAIRMENT

3 sem. hrs.

Hearing impairment: survey of behavior, intelligence and personality data, parental counseling. Prerequisite: Speech Pathology and Audiology 350 or equivalent.

358 PRACTICUM IN BASIC AUDIOLOGY ½-1 sem. hr.

Approximately 45 hours of supervised clinical practice for each semester hour. Prerequisite: Consent of instructor. May be repeated for maximum of 2 hours.

371 SPEECH SCIENCE 3 sem. hrs.

Elementary acoustical theory and application to study of speech production and reception. Speech spectrography.

372 ANATOMY AND PHYSIOLOGY OF THE SPEECH AND HEARING MECHANISM 3 sem. hrs.

Includes effects of deviations on end product. Prerequisite: Biological Sciences 181.

398 INTRODUCTION TO GRADUATE STUDY IN SPEECH PATHOLOGY AND AUDIOLOGY

3 sem. hrs.

Review of research strategy and philosophy in speech pathology and audiology designed for

professionals who will be consumers of research literature.

414 VOICE AND ARTICULATION DISORDERS

3 sem. hrs.

Differential diagnoses and therapeutic procedures for voice disorders and recent developments in articulation. Prerequisites: Speech Pathology and Audiology 215, 311 and 372 or equivalent.

415 SEMINAR IN LANGUAGE DISORDERS

3 sem. hrs.

Prerequisites: Speech Pathology and Audiology 215 or 320.

417 CLINICAL PRACTICE IN SPEECH PATHOLOGY 1-6 sem. hrs.

Supervised work in diagnosis and/or therapy. Prerequisites: Speech Pathology and Audiology 215, study of phonetics and clinical services, previous clinical experience and consent of Director of Clinic.

418 STUTTERING II 3 sem. hrs.

Study of the recent research relating to stuttering and of methods of examination, diagnosis and remedial procedures. Prerequisite: Speech Pathology and Audiology 319.

419 APHASIA 3 sem. hrs.

This course is designed to provide the student with a knowledge of the past and current research and theory on the etiologies, diagnosis of, and therapies for aphasia in children and adults. Prerequisites: Speech Pathology and Audiology 316 and 372.

441 DIRECTED READINGS IN SPEECH PATHOLOGY 1-3 sem. hrs.

For the student who would benefit from specialized independent study which can be adapted to his background and needs. Permission to enroll should be secured from the department chairperson and the instructor involved. May be repeated with a maximum of three hours credit. Prerequisite: Evidence of substantial background in speech pathology.

443 SYMPOSIUM IN AUDIOLOGY OR SPEECH PATHOLOGY

1-6 sem. hrs.

For the experienced professional person in speech pathology and/or audiology or for advanced graduate students. May be repeated up to six hours. Prerequisite: Consent of the director of the symposium.

444 NEUROPATHOLOGIES OF SPEECH

3 sem. hrs.

The nature and types of neuropathologies that have an effect on speech production, with particular emphasis given to cerebral palsy. Prerequisite: Speech Pathology and Audiology 316 or equivalent.

445 ORO—FACIAL ANOMALIES AND ASSOCIATED SPEECH DISORDERS

3 sem. hrs.

Embryological growth and development and the etiologies, diagnostic and habilitative procedures for cleft lip and palate and associated congenital anomalies. Prerequisites: Speech Pathology and Audiology 215 and 316 or equivalent.

446 DIAGNOSTIC PROCEDURES IN SPEECH PATHOLOGY

3 sem. hrs.

Test materials and procedures for differential diagnoses of speech, language, and hearing problems.

450 ADVANCED AUDITORY TESTS

3 sem. hrs.

The rationale, application and interpretation of advanced testing procedures; evaluation of research in special tests. Prerequisite: Speech Pathology and Audiology 350 or equivalent.

452 SPEECH AUDIOMETRY AND HEARING AIDS

3 sem. hrs.

The examination of the theories and principles underlying the clinical management of communication disorders resulting from and related to hearing impairment, with emphasis on speech audiometry and hearing aids. Prerequisite: Speech Pathology and Audiology 350 or equivalent.

453 AUDITORY FUNCTIONS AND DISORDERS

3 sem. hrs.

Function of the auditory mechanism with reference to theories of hearing; examination of the etiology, loci and effects of hearing pathology as it effects auditory function in adults. Prerequisite: Speech Pathology and Audiology 350 or equivalent.

455 HEARING DISORDERS IN CHILDREN

3 sem. hrs.

A review and study of the literature in audiology and otology of the etiology, loci and effects of pathology in the auditory system of children. Prerequisite: Consent of instructor.

456 SEMINAR IN AUDIOLOGY

2-6 sem. hrs.

Specific topics selected by the student with approval of the instructor, or assigned topics will be explored. In general, library sources will be employed; however, some experimental procedures may be approved. The student may repeat the seminar for credit provided that the subject matter is not duplicated and the total credit earned does not exceed six semester hours. Prerequisite: Consent of instructor.

Theatre

Chairperson of the Department: Calvin Lee Pritner, Office: Centennial Building, East 108.

Teaching Staff: E. Andreasen, E. Bickley, G. Cronauer, J. Kirk, R. Lane, C. Pritner, J. Scharfenberg, J. Sharpham, F. Vybiral, J. Zvanut.

The department offers work leading to the following degrees: M.A., M.S., M.S. in Ed., and M.F.A.

MASTER OF FINE ARTS

The Master of Fine Arts is a 60-hour program that emphasizes both practice and theory. Candidates must demonstrate proficiency in at least one of the following: acting, costume design, directing, playwrighting, scene design, or creative drama; each

458 PRACTICUM IN AUDIOLOGY

1-4 sem. hrs.

Supervised experience in all aspects of audiology. Emphasis in one or more aspects will be permitted to suit the objectives of the student. The student may enroll more than once if the subject matter is not duplicated and the total credit earned does not exceed six semester hours. Prerequisite: Speech Pathology and Audiology 350.

471 EXPERIMENTAL PHONETICS

3 sem. hrs.

Procedures used in the analysis of sound, particularly the sounds of spoken language, will be used in laboratory projects. Individual research projects will be encouraged.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

candidate will be required to complete a three hour course that provides a supervised experience in college teaching; candidates must demonstrate the ability to understand the conceptual basis of their art and to articulate that understanding to others.

TYPICAL M.F.A. PROGRAM

A student is expected to encounter a range of experiences that will prepare him to be certified as competent in his specialty. The M.F.A. candidate is required to complete a minimum of 12 hours in his/her studio area at ISU. Additional experiences will ordinarily include:

12 hours (from the areas of theatre history,

theatre criticism and theory, and dramatic literature)
6 hours (in performance related courses outside student's specialty)

3 hours (in college teaching)

3 hours (in Theatre education)

The portfolio committee may prescribe experiences in addition to the above depending on the student's demonstrated competencies.

A maximum of 12 hours may be taken in an off-campus internship program.

Each M.F.A. student is required to enroll in Theatre 497, "M.F.A. Portfolio" during each semester of residency.

COURSES

300 HISTORY OF THE CINEMA

3 sem. hrs.

Lab: screening of significant films. Development of the cinema.

301 PRINCIPLES OF THEATRE EDUCATION 3 sem. hrs.

Philosophies of theatre education, teaching strategies, co-curricular programs, textbook analysis and professional organizations.

302 CINEMA PRODUCTION

3 sem. hrs.

Lab: produce 100 to 200 foot 16 mm silent motion pictures. Principles and theory of 16 mm motion picture production. Major film making as an art form of creative self-expression.

325 COSTUME CRAFTS

3 sem. hrs.

Theory and technique of costume construction and the use of special materials. Prerequisite: Theatre 125 or permission of instructor. Course fee required.

326 VOCAL/PHYSICAL TECHNIQUE I

3 sem. hrs.

Integrated approach to actor-training, focusing on the acquisition of specific vocal/physical techniques skills: self-awareness, voice/body development, improvisation, expression.

327 VOCAL/PHYSICAL TECHNIQUE II

3 sem. hrs.

Further investigation and development of skills, experiences, methods and attitudes introduced in Vocal/Physical Technique I. Prerequisite: Theatre 126 or 326.

328 ADVANCED STUDIES IN VOCAL/PHYSICAL TECHNIQUE

3 sem. hrs.

Continued vocal/physical technique with emphasis on individual needs. Advanced problems: characterization, circus, ensemble, period/style movement, choreography, use of externals. Prerequisites: Theatre 126 and 127, or 326 and 327 or equivalent. May be repeated.

330 ADVANCED STAGE LIGHTING

3 sem. hrs.

Lighting design for proscenium and non-proscenium production; attention to system design. Prerequisites: Theatre 162 and 262 and consent of instructor.

332 ADVANCED CREATIVE DRAMA

3 sem. hrs.

In-depth work in creative drama. Includes drama experiences, examining theories, comparing teaching strategies, and developing curricula. Prerequisite: Theatre 232, or Curriculum and Instruction 250 or consent of instructor.

333 CREATIVE DRAMA PRACTICUM

2-3 sem. hrs.

Students will gain practical experience in creative drama teaching by leading a class in drama under faculty supervision for a semester. Prerequisite: Theatre 232 or Curriculum and Instruction 250 and consent of instructor.

334 HISTORY AND STYLES OF STAGE COSTUMING 3 sem. hrs.

The costume's reflection of cultural and social milieu and the costume's application to the stage. Prerequisite: Theatre 125, Lab arranged.

335 ACTING: EXPLORING CHARACTERIZATION THROUGH ANIMAL EXERCISES
3 sem. hrs.

Techniques of actor research and characterization. Prerequisite: Theatre 134 or equivalent and consent of instructor. May be repeated.

336 ACTING STYLE: DISCOVERY AND PERFORMANCE
3 sem. hrs.

Analysis, rehearsal and performance technique examined through the work of a particular playwright. Prerequisite: Theatre 134 or equivalent and consent of instructor. May be repeated.

337 PROBLEMS IN DIRECTING
3 sem. hrs.

Theories and techniques of directing plays of differing forms, styles and historical periods. Concentration on various aesthetic principles involved in directing. Laboratory to be arranged with instructor. Course may be repeated for credit. Up to six hours credit may be applied toward the M.A. or M.S. M.F.A. students may repeat throughout their degree program. Prerequisites: Theatre 237 and consent of instructor.

338 PROBLEMS IN ACTING
3 sem. hrs. Formerly Theatre 336

Introduction to and practice in the various advanced styles of acting. Course may be repeated for credit. Up to six hours credit may be applied toward the M.A. or M.S. M.F.A. students may repeat throughout their degree program. Prerequisite: Consent of instructor. Laboratory.

339 THEATRE ENCOUNTER
1-3 sem. hrs.

Student initiated projects in acting, directing, design, and playwriting presented and critiqued. Emphasis is on process rather than final product. Production source for Process Theatre. May be repeated to total six hours. M.F.A. student may enroll for credit in each term of residency.

340 ADVANCED DESIGN 3 sem. hrs.

Intensive work in the areas of design and rendering for the stage with emphasis upon new materials and techniques. May be repeated for credit. Up to six hours credit may be applied toward the M.A. or M.S. M.F.A. students may repeat through their degree program. Prerequisite: Theatre 231.

341 ORAL INTERPRETATION OF LITERATURE II 3 sem. hrs.

Selected types of literature; emphasis upon drama and poetry. Prerequisite: Theatre 141.

343 THEATRE HISTORY I (formerly THEATRE 335)
3 sem. hrs.

The study of drama in theatre history in the Western world from its origins to approximately 1600.

344 THEATRE HISTORY II (formerly THEATRE 333—MODERN DRAMA) 3 sem. hrs.

The study of drama and theatre history in the Western world, from approximately 1600 to 1875.

345 THE MODERN THEATRE
3 sem. hrs.

Developments in stagecraft, directing, acting, and theatrical theory from the late nineteenth century to the present.

348 PLAYWRITING 3 sem. hrs.

Playwriting techniques of selected masters with practical application of the techniques in the writing of original plays. Also offered as English 348.

350 THEATRE PRACTICUM
1-3 sem. hrs.

Application of the principles of dramatic theory to the problems of play production. Students may enroll each semester.

365 FILM THEORY AND CRITICISM
3 sem. hrs.

Theories relating to the art of film making. Prerequisites: Theatre 300 and consent of instructor.



377 THEATRICAL COSTUME DESIGN

3 sem. hrs.

Research and practical application to theatrical costume designing; use of dramatic analysis. Course may be repeated for credit. Up to six hours credit may be applied toward the M.A. or M.S. M.F.A. students may repeat throughout their degree program.

380 DIRECTED PROJECTS

1-3 sem. hrs.

Individually supervised study for the advanced student. Prerequisite: Consent of instructor. May be repeated for credit when projects vary.

431 THEATRES AND AUDITORIUMS:

PLANNING AND DESIGN

3 sem. hrs.

Technical problems in stage and auditorium design and planning; emphasis on stage, lighting, and sound equipment and control. Laboratory. Prerequisite: Theatre 231.

436 SCENE STUDY, 3 sem. hrs.

This course gives entering graduate students the opportunity for an orientation to the acting program. It is used for diagnostic testing in preparation for placement.

438 DRAMA THEORY AND CRITICISM

3 sem. hrs.

Theatre practice from the point of view of a contemporary aesthetic. Subject of investigation will change from semester to semester.

439 DRAMA FORM, 3 sem. hrs.

Attitudes toward drama form from classical Greek to modern theatre are examined from the perspective of contemporary theories of the nature of dramatic action.

444 THE BRITISH THEATRE

3 sem. hrs.

Trends in dramatic literature and theatrical productions in England from the Medieval period to present.

445 THE AMERICAN THEATRE

3 sem. hrs.

Development of the theatre, its dramatic literature and its arts and crafts, in America from its beginning to present.

495 GRADUATE INTERSHIP

3-12 sem. hrs.

Experience in off-campus theatre situations including: community theatres, touring companies, educational theatres and arts organizations. Prerequisite: Consent of department chairperson and advisor.

497 M.F.A. PORTFOLIO

1 sem. hr.

M.F.A. candidate must enroll for Portfolio each semester. Meet with committee to determine area of study. Prerequisite: Admission by audition interview to M.F.A. Program.

499 INDEPENDENT RESEARCH FOR THE MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he may not count more than a total of six hours of 499 among the 32 required for the master's degree.

Western European Studies

Coordinator: Walter S. G. Kohn, Department of Political Science.

Teaching Staff: R. Austensen, J. Chizmar, H. Chung, P. Couch, B. Fritzen, M. Hassan, R. Johnson, J. Koch, N. Holt, W. Kohn, E. J. Miller, V. Owen, D. Poe, E. Reitan, E. Schmidt, T. Shin, L. Walker, R. Whitcomb.

The Western European Studies program leads to the degree of Master of Arts. The program is designed for students who wish to pursue international careers

in business or government as well as for those who want a broader understanding of Western European affairs. The program consists of intensive training in a modern European language and course work in business, economics, geography, history, and political science.

COURSES

BUSINESS ADMINISTRATION

311 GOVERNMENT REGULATIONS OF BUSINESS 3 sem. hrs.

331 CONSUMER BEHAVIOR 3 sem. hrs.

336 INTERNATIONAL MARKETING 3 sem. hrs.

344 INTERNATIONAL FINANCE 3 sem. hrs.

421 ANALYSIS OF ORGANIZATIONAL BEHAVIOR 3 sem. hrs.

426 SEMINAR IN MANAGEMENT 3 sem. hrs.

481 ORGANIZATION STRUCTURE AND SYSTEMS 3 sem. hrs.

ECONOMICS

333 OPERATIONS RESEARCH 3 sem. hrs.

345 INTERNATIONAL ECONOMICS 3 sem. hrs.

372 HISTORY OF ECONOMIC THOUGHT 3 sem. hrs.

401 SURVEY OF ECONOMIC PRINCIPLES 3 sem. hrs.

405 THEORIES OF ECONOMIC DEVELOPMENT 3 sem. hrs.

409 PROBLEMS IN SOCIALISTIC ECONOMIES 3 sem. hrs.

445 INTERNATIONAL ECONOMIC ANALYSIS 3 sem. hrs.

FOREIGN LANGUAGES

Course work is available in French, German, and Spanish.

GEOGRAPHY

435 GEOGRAPHY OF WESTERN EUROPE 3 sem. hrs.

440 MEDITERRANEAN LANDS 3 sem. hrs.

470 SEMINAR IN REGIONAL GEOGRAPHY 3 sem. hrs.

HISTORY

341 EUROPEAN INTELLECTUAL HISTORY TO 1600 3 sem. hrs.

342 EUROPEAN INTELLECTUAL HISTORY SINCE 1600 3 sem. hrs.

343 MODERN EUROPEAN DIPLOMATIC HISTORY I 1789-1890 3 sem. hrs.

344 MODERN EUROPEAN DIPLOMATIC HISTORY, II 1890-PRESENT 3 sem. hrs.

345 FRENCH REVOLUTION AND NAPOLEONIC ERA, 1789-1815 3 sem. hrs.

362 MODERN BRITAIN, 1815 TO THE PRESENT 3 sem. hrs.

365 NAZI GERMANY 3 sem. hrs.

402 SEMINAR IN EUROPEAN HISTORY
4 sem. hrs.

**441 SEMINAR: EUROPEAN
INTELLECTUAL HISTORY**
4 sem. hrs.

463 SEMINAR IN MODERN FRANCE
4 sem. hrs.

466 SEMINAR: MODERN GERMANY
4 sem. hrs.

POLITICAL SCIENCE

441 SEMINAR IN COMPARATIVE POLITICS
3 sem. hrs.

**451 SEMINAR IN INTERNATIONAL
RELATIONS** 3 sem. hrs.

**452 SEMINAR IN INTERNATIONAL
ORGANIZATIONS AND LAW**
3 sem. hrs.

Zoology
(See Biological Sciences)

General Courses

389 SELECTED STUDIES 1-6 sem. hrs.

Course work not offered within the framework of existing departmental courses. The topic to be covered will be identified in the class schedule booklet each semester. Experimental courses and courses cutting across departmental lines may be offered as selected studies.

393 WORKSHOP 1-6 sem. hrs.

Advanced workshop for juniors, seniors, and graduate students. Credit will be given by the department offering the workshop.

397 INSTITUTE IN 1-9 sem. hrs.

Federal and state sponsored institutes or similar short term programs requiring treatment of subject matter of a special nature or for special groups.

**399 ARTS AND SCIENCES MULTI—
DISCIPLINARY SEMINAR**
3 sem. hrs.

Intensive study in selected topics of a multi-disciplinary nature to be offered cooperatively by two or more departments.

400 INDEPENDENT STUDY 1-4 sem. hrs.

Independent work under a qualified member of the faculty, in areas not available through regular courses. Prerequisites: Permission of the faculty

member, the student's adviser and the chairpersons of the departments involved.

489 ADVANCED STUDY 1-6 sem. hrs.

Advanced course work not offered within the framework of existing departmental courses. The topic to be covered will be identified in the class schedule booklet each semester. Experimental courses and courses cutting across departmental lines may be offered as advanced studies.

500 INDEPENDENT DOCTORAL STUDY
1-4 sem. hrs.

Independent doctoral-level work under a qualified member of the graduate faculty, in subject matter not available through regular courses.

589 ADVANCED DOCTORAL STUDY

Doctoral-level course work under a qualified member of the graduate faculty, in subject matter not offered within the framework of existing departmental courses. The topic to be covered will be identified in the class schedule booklet each semester.

599 DOCTORAL RESEARCH
Variable Credit

Research involving the gathering of data to form the basis of the Doctoral dissertation.

The Graduate Faculty

- Richard E. Allen (1963)**
Associate Professor of English
Ph.D., Washington University
- Edward Anderson (1965)**
Associate Professor of Industrial
Technology
Ed.D., University of Illinois
- Frances E. Anderson (1970)**
Assistant Professor of Art
Ed.D., Indiana University
- Edward A. Andreasen (1967)**
Professor of Theatre
M.A., Michigan State University
- Roy A. Austensen (1969)**
Assistant Professor of History
Ph.D., University of Illinois
- Paul J. Baker (1965)**
Associate Professor of Sociology
Ph.D., Duke University
- George Barford (1947)**
Professor of Art
M.A., Columbia University
- Buford H. Bass (1951)**
Head Baseball Coach,
Professor of Health, Physical
Education and Recreation
Ed.D., Louisiana State University
- Claude A. Bell (1956)**
Associate Professor of Industrial
Technology
Ed.D., University of Missouri
- Ralph A. Bellas (1965)**
Associate Professor of English
Ph.D., University of Kansas
- Francis B. Belshe (1948)**
Dean of Academic Services,
Professor of Education,
Director of Summer Sessions
Ph.D., Yale University
- Kenneth N. Berk (1969)**
Associate Professor of
Mathematics
Ph.D., University of Minnesota
- Laura E. Berk (1969)**
Assistant Professor of Psychology
Ph.D., University of Chicago
- Minnie P. Berson (1970)**
Professor of Elementary Education
and Director of Early Childhood
Education Programs
Ed.D., Wayne State University
- Douglas R. Bey (1944)**
Professor of Mathematics
Ph.D., University of Illinois
- Dale E. Birkenholz (1962)**
Professor of Ecology
Ph.D., University of Florida
- Ferman Bishop (1960)**
Professor of English
Ph.D., University of Wisconsin
- Alton J. Bjork (1968)**
Professor of Education
Ed.D., Columbia University
- E. Scott Blankenship (1956)**
Professor of Education
Ph.D., Ohio State University
- Roger D. Blomgren (1949)**
Professor of Industrial Technology
Ed.D., University of Illinois
- John K. Boaz (1965)**
Assistant Professor of Information
Sciences
Ph.D., Wayne State University
- Charles W. Bolen (1970)**
Dean of the College of Fine Arts,
Professor of Music
Ph.D., Indiana University
- James W. Bommarito (1967)**
Associate Professor of
Special Education
Ed.D., Wayne State University
- Harold J. Born (1961)**
Chairperson of the Department of
Physics, Professor of Physics
Ph.D., Iowa State University
- Mack L. Bowen (1971)**
Assistant Professor of
Special Education
Ph.D., University of Illinois
- Fay F. Bowren (1969)**
Associate Professor of Education
Ed.D., University of New Mexico
- Harold E. Boyd (1965)**
Associate Professor of Art
M.F.A., University of Kansas
- Robert J. Brake (1968)**
Associate Professor of Information
Sciences
Ph.D., Michigan State University
- Benton K. Bristol (1965)**
Associate Professor of Agricultural
Mechanics
Ed.D., Pennsylvania State University
- Herman E. Brockman (1963)**
Professor of Genetics
Ph.D., Florida State University
- Leger N. Brosnahan (1968)**
Associate Professor of English
Ph.D., Harvard University
- Francis R. Brown (1949)**
Director of the Division of
Continuing Education and
Public Service, Assistant
Director of Summer Sessions,
Professor of Mathematics
Ed.D., University of Illinois
- Lauren E. Brown (1967)**
Associate Professor of Vertebrate
Zoology
Ph.D., University of Texas
- R. Elizabeth Brown (1955)**
Professor of Psychology
Ph.D., Northwestern University
- Walter H. Brown (1955)**
Professor of Botany
Ph.D., University of Illinois
- Leonard A. Brubaker (1964)**
Associate Professor of Elementary
Education
Ph.D., Ohio State University
- Michael A. Brunt (1972)**
Associate Professor of Speech
Pathology and Audiology
Ph.D., University of Kansas
- Gene A. Budig (1972)**
President of the University,
Professor of Educational
Administration
Ed.D., University of Nebraska
- Clinton R. Bunke (1967)**
Professor of Education
Ph.D., University of Iowa
- Roger K. Bunting (1966)**
Associate Professor of Chemistry
Ph.D., Pennsylvania State University
- Thomas E. Caldwell (1970)**
Associate Professor of
Special Education
Ed.D., University of Kansas
- Wesley C. Calef (1970)**
Professor of Geography
Ph.D., University of Chicago
- George R. Canning, Jr. (1958)**
Professor of English
Ph.D., University of Wisconsin
- R. Jerry Cantlon (1962)**
Professor of Education
Ed.D., University of Colorado
- Dorothy H. Carrington (1961)**
Affirmative Action Officer for
Women, Associate Professor
of Psychology
Ed.D., Florida State University
- Valjean M. Cashen (1961)**
Professor of Psychology
Ed.D., University of
Northern Colorado
- Merritt M. Chambers (1966)**
Professor of Educational
Administration
Ph.D., Ohio State University
- Roger J. Champagne (1960)**
Professor of History
Ph.D., University of Wisconsin
- Robert M. Chasson (1965)**
Associate Professor of Botany
Ph.D., University of Missouri
- Patricia A. Chesebro (1963)**
Associate Professor of Psychology
Ph.D., University of Illinois
- Wilbur W. Chrudimsky (1970)**
Assistant Professor of Plant and
Soil Science
Ph.D., Oklahoma State University

- Tsan-Iang Chuang (1967)**
Associate Professor of Botany
Ph.D., University of California
at Berkeley
- Hoon M. Chung (1970)**
Associate Professor of Political
Science
Ph.D., University of Pennsylvania
- Herbert E. Clark (1966)**
Associate Professor of Psychology
Ph.D., Purdue University
- Ira Cohen (1965)**
Associate Professor of History
Ph.D., New York University
- James E. Collie (1957)**
Professor Health, Physical
Education, and Recreation
P.E.D., Indiana University
- Thomas E. Comfort (1965)**
Professor of French
Ph.D., University of Illinois
- Roque Cordero (1972)**
Associate Professor of Music
B.A., Hamline University
- Arthur B. Corra (1971)**
Professor of Music
Mus. D., Indiana University
- Peter D. Couch (1970)**
Professor of Management
Ph.D., University of Wisconsin
- Carrol B. Cox (1961)**
Assistant Professor of English
Ph.D., University of Michigan
- Virginia R. Crafts (1967)**
Professor of Health, Physical
Education, and Recreation
Ed.D., Columbia University
- John G. Cragan (1973)**
Assistant Professor of
Information Sciences
Ph.D., University of Minnesota
- John C. Cralley (1963)**
Assistant Professor of Zoology
Ph.D., University of Illinois
- Kenneth J. Crepas (1970)**
Associate Professor of Insurance
Ph.D., University of Iowa
- John E. Crew (1963)**
Professor of Physics
Ph.D., University of Illinois
- Robert L. Crist (1962)**
Professor of Psychology
Ph.D., Purdue University
- John H. Crotts (1968)**
Professor of Elementary Education
Ed.D., University of Missouri
- Norton B. Crowell (1969)**
Professor of English
Ph.D., Harvard University
- Richard D. Crumley (1962)**
Associate Professor of
Mathematics
Ph.D., University of Chicago
- Alfred A. Culver (1961)**
Professor of Animal Science
Ph.D., Purdue University
- Donald E. Davis (1964)**
Associate Professor of History
Ph.D., Indiana University
- F. James Davis (1971)**
Professor of Sociology
Ph.D., University of Iowa
- Angel M. Diaz (1970)**
Associate Professor of Special
Education
Ed.D., University of Houston
- Louise E. Dieterle (1969)**
Director of Clinical Experiences
in Teacher Education,
Professor of Educational
Administration
Ed.D., Loyola University
- Eleanor Dilks (1952)**
Professor of Zoology
Ph.D., University of Wisconsin
- Paul F. Dohrmann (1961)**
Assistant Director of the Metcalf
Elementary School, Professor of
Health, Physical Education
and Recreation
Ph.D., State University of Iowa
- Thelbert Drake (1973)**
Chairperson of the Department of
Curriculum and Instruction,
Professor of Education
Ed.D., Michigan State University
- Pauline S. Drawver (1956)**
Associate Professor of English
Ph.D., University of Illinois
- Robert L. Duncan (1961)**
Associate Professor of English
Ph.D., Indiana University
- Robert C. Duty (1963)**
Professor of Chemistry
Ph.D., State University of Iowa
- Kay P. Easson (1970)**
Associate Professor of English
Ph.D., University of Tulsa
- Roger R. Easson (1970)**
Associate Professor of English
Ph.D., University of Tulsa
- Leo E. Eastman (1954)**
Associate Secretary of the University
Professor of Education
Ed.D., University of North Dakota
- David C. Eaton (1969)**
Assistant Professor of Sociology
Ph.D., University of Texas
- Charles W. Edwards (1964)**
Professor of Educational
Administration
Ph.D., University of Iowa
- Clifford H. Edwards (1968)**
Associate Professor of Education
Ed.D., University of Utah
- Thomas F. Edwards (1957)**
Professor of Elementary Education
Ed.D., Michigan State University
- Elwood F. Egelston (1962)**
Professor of Educational
Administration
Ed.D., University of Oregon
- Lawrence C. Eggan (1968)**
Professor of Mathematics
Ph.D., University of Oregon
- Ray E. Eiben (1967)**
Associate Professor of Education
Ph.D., Ohio State University
- Thomas E. Eimermann (1970)**
Assistant Professor of Political
Science
Ph.D., University of Illinois
- Donald H. Ericksen (1969)**
Associate Professor of English
Ph.D., University of Illinois
- J. Gary Erisman (1967)**
Associate Professor of
Industrial Technology
Ph.D., University of Illinois
- John M. Ewing (1969)**
Professor of Elementary Education
Ph.D., University of Nebraska
- Lloyd M. Farlee (1962)**
Professor of Music
Ph.D., University of Iowa
- Dorothy E. Fensholt (1951)**
Professor of Botany
Ph.D., Northwestern University
- A. Gordon Ferguson (1964)**
Associate Professor of Spanish
Ph.D., University of Nebraska
- John W. Ferrell (1961)**
Professor of Music
Ph.D., State University of Iowa
- Frederic N. Firestone (1970)**
Professor of Economics
Ph.D., University of Wisconsin
- Kenneth L. Fitch (1963)**
Associate Professor of Anatomy
Ph.D., University of Michigan
- Thomas C. Fitch (1969)**
Associate Professor of Elementary
Education
Ph.D., Michigan State University
- Eugene D. Fitzpatrick (1965)**
Professor of Psychology
Ed.D., University of Northern
Colorado
- Alan T. Folkens (1971)**
Adjunct Professor in the Center
for Allied Health Professions
Ph.D., University of South Dakota
- George W. Forgey (1967)**
Acting Chairperson of the
Department of Agriculture
Associate Professor of
Agricultural Mechanics
Ph.D., Illinois State University
- Charles P. Frahm (1968)**
Associate Professor of Physics
Ph.D., Georgia Institute of Technology
- John B. Freed (1969)**
Assistant Professor of History
Ph.D., Princeton University
- John L. Frehn (1962)**
Professor of Physiology
Ph.D., Pennsylvania State University
- Ruth M. Freyberger (1951)**
Professor of Art
Ed.D., Pennsylvania State University
- Stephen H. Friedberg (1970)**
Associate Professor of
Mathematics
Ph.D., Northwestern University

- Walter H. Friedhoff (1958)**
Chairperson of the Department
of Psychology,
Professor of Psychology
Ph.D., University of Iowa
- William Frisko (1961)**
Professor of Elementary Education
Ed.D., Wayne State University
- William D. Fuehrer (1963)**
Associate Professor of the Teaching
of German in
University High School
Ph.D., University of Michigan
- Frederick W. Fuess (1962)**
Professor of Plant
and Soil Science
Ph.D., Michigan State University
- Neal R. Gamsky (1970)**
Vice President and Dean
of Student Affairs
Associate Professor of Psychology
Ph.D., University of Wisconsin
- Raymond E. George (1970)**
Associate Professor of Art
M.A. in Education, University of
Northern Iowa
- Noel C. Gill (1970)**
Associate Professor of Psychology
Ph.D., University of Minnesota
- Victor E. Gimmesdahl (1948)**
Professor of English
Ph.D., University of Wisconsin
- William J. Gnagey (1961)**
Professor of Psychology, Director
of Educational Research Services
Ph.D., Wayne State University
- John T. Goeldi (1967)**
Associate Professor of Elementary
Education
Ph.D., Michigan State University
- Joseph L. Grabill (1968)**
Professor of History
Ph.D., Indiana University
- Charles E. Gray (1959)**
Associate Professor of History
Ed.D., University of Illinois
- Harold L. Gregor (1970)**
Professor of Art
Ph.D., Ohio State University
- Ivo P. Greif (1961)**
Professor of Elementary Education
Ed.D., Wayne State University
- Audrey J. Grupe (1968)**
Associate Professor of Psychology
Ph.D., University of Illinois
- Stanley E. Grupp (1957)**
Professor of Sociology
Ph.D., Indiana University
- Kwang-Chul Ha (1967)**
Associate Professor
of Mathematics
Ph.D., University of North Carolina
- Bessie D. Hackett (1969)**
Associate Professor of
Home Economics
Ed.D., University of Illinois
- Edwin C. Hackleman, Jr. (1970)**
Assistant Professor of Marketing
Ph.D., University of Illinois
- William W. Haddad**
Assistant Professor of History
Ph.D., Ohio State University
- Dean S. Hage (1959)**
Professor of Special Education
Ph.D., State University of Iowa
- Ronald S. Hallinski (1968)**
Director of Measurement and
Evaluation Service,
Associate Professor of Education
Ph.D., University of Iowa
- Barbara C. Hall (1957)**
Professor of Health, Physical
Education, and Recreation
Ed.D., Columbia University
- John D. Hall (1970)**
Professor of Business Education
Ed.D., Texas Tech University
- James A. Hallam (1966)**
Chairperson of the Department of
Accounting, Professor of Accounting
Ph.D., University of Iowa; C.D.P.
- John F. Hansen (1972)**
Assistant Professor of Chemistry
Ph.D., Duke University
- Warren R. Harden (1954)**
Director of Institutional
Research and
Computer Operations,
Professor of Economics
Ph.D., Indiana University
- Charles B. Harris (1968)**
Associate Professor of English
Ph.D., Southern Illinois University
- E. Frank Harrison (1974)**
Dean of the College of Business
Professor of Management
Ph.D., University of Washington
- Richard R. Hart (1961)**
Associate Professor of Geology
Ph.D., State University of Iowa
- W. Douglas Hartley (1954)**
Associate Professor of Art
Ph.D., New York University
- Mostafa F. Hassan (1968)**
Professor of Economics
Ph.D., University of Wisconsin
- G. Louis Heath (1969)**
Associate Professor of Education
Ph.D., University of California,
Berkeley
- John M. Heissler, Jr. (1961)**
Professor of English
Ph.D., University of Illinois
- Arlan C. Helgeson (1951)**
Acting Vice President and Dean
of the University,
Dean of the Graduate School,
Professor of History
Ph.D., University of Wisconsin
- Robert E. Hemenway (1964)**
Professor of Special Education
Ed.D., Boston University School
of Education
- Reginald Henry (1969)**
Associate Professor of Agricultural
Mechanics
Ph.D., University of Missouri
- Richard Hentz (1967)**
Associate Professor of Art
M.F.A., Northern Illinois University
- Henry J. Hermanowicz (1959)**
Dean of the College of Education,
Professor of Education
Ed.D., Columbia University
- Howard R. Hetzel (1962)**
Chairperson of the Department
of Biological Sciences,
Professor of Zoology
Ph.D., University of Washington
- Charles R. Hicklin (1960)**
Professor of Education
Ed.D., University of Illinois
- G. Alan Hickrod (1967)**
Professor of Educational
Administration
Ed.D., Harvard University
- John S. Hill (1962)**
Professor of English
Ph.D., University of Wisconsin
- Jack A. Hobbs (1970)**
Professor of Art
Ph.D., University of Iowa
- Robert A. Hogan (1963)**
Professor of Psychology
Ed.D., Case Western Reserve
University
- Kenneth A. Holder (1969)**
Associate Professor of Art
M.F.A., Chicago School of the Art
Institute
- Robert E. Holdridge (1965)**
Associate Professor of Information
Sciences
Ed.D., Indiana University
- M. Paul Holsinger (1969)**
Associate Professor of History
Ph.D., University of Denver
- Niles R. Holt (1968)**
Associate Professor of History
Ph.D., Yale University
- Gerlof D. Homan (1968)**
Professor of History
Ph.D., University of Kansas
- Joseph C. Honan (1968)**
Associate Professor of
Political Science
Ph.D., University of Missouri
- James E. House (1966)**
Professor of Chemistry
Ph.D., University of Illinois
- Quinn L. Hrudka (1962)**
Supervisor of Off-Campus
Student Teaching,
Associate Professor of Education
Ed.D., Indiana University
- Lucy Jen Huang (1967)**
Professor of Sociology
Ph.D., University of Chicago
- Benjamin C. Hubbard (1961)**
University Professor of
Educational Administration
Ed.D., University of Alabama
- Harry W. Hulzinga (1967)**
Associate Professor of Parasitology
Ph.D., University of Connecticut
- Raymond H. Hunt (1965)**
Associate Professor of Chemistry
Ph.D., University of Illinois

- Mary K. Huser (1966)**
Professor of Elementary Education
Ed.D., University of Illinois
- H. Dean Hustuft (1969)**
Assistant Professor of Information Sciences
Ed.D., Indiana University
- Barbara B. Hutchinson (1966)**
Associate Professor of Speech Pathology and Audiology
Ph.D., University of Utah
- Virgil R. Hutton (1960)**
Associate Professor of English
Ph.D., University of Michigan
- Thaddeus C. Ichniowski (1961)**
Professor of Chemistry
Ph.D., Purdue University
- E. Carmen Imel (1964)**
Associate Professor of Health, Physical Education, and Recreation
Ph.D., University of Iowa
- Arnold J. Insel (1969)**
Associate Professor of Mathematics
Ph.D., University of California at Berkeley
- Eugene R. Irving (1969)**
Professor of Elementary Education
Ed.D., University of Illinois
- Irving Jacks (1968)**
Director, Program in Corrections, Professor of Psychology
Ph.D., New York University
- Ted R. Jackson (1969)**
Associate Professor of Information Sciences
Ph.D., University of Wisconsin
- Alvin R. Jacobson (1970)**
Director of Environmental Health, Professor of Environmental Health in the Center for Allied Health Professions
Ph.D., State University of Iowa
- Jeannie H. James (1959)**
Associate Professor of Home Economics
Ed.D., Pennsylvania State University
- Kenneth E. James (1962)**
Professor of Agricultural Education
Ed.D., University of Missouri
- Edward B. Jelks (1968)**
Acting Chairperson of the Department of Sociology-Anthropology
Professor of Anthropology
Ph.D., University of Texas
- D. Reed Jensen (1966)**
Associate Professor of Physiology
Ph.D., Utah State University
- Kenneth E. Jesse (1967)**
Associate Professor of Physics
Ph.D., Arizona State University
- Milford C. Jochums (1948)**
Professor of English
Ph.D., University of Illinois
- James J. Johnson (1966)**
Associate Professor of Psychology
Ph.D., Northwestern University
- Ross H. Johnson (1970)**
Acting Chairperson of the Department of Business Administration
Associate Professor of Management
Ph.D., University of Illinois
- John L. Johnston (1956)**
Professor of Industrial Technology
Ed.D., University of Missouri
- H. Twyman Jones (1967)**
Associate Professor of Education
Ed.D., University of Missouri
- Margaret L. Jones (1956)**
Professor of Health, Physical Education, and Recreation
Ph.D., University of Wisconsin
- Steven E. Kagle (1969)**
Associate Professor of English
Ph.D., University of Michigan
- Frederick D. Kagy (1965)**
Professor of Industrial Technology
Ed.D., University of Wyoming
- Alfred L. Kaisershot (1970)**
Associate Professor of Business Education
Ed.D., University of Nebraska
- Jacqueline Q. Karch (1957)**
Professor of Home Economics
Ed.D., Washington University
- Benjamin J. Keeley (1952)**
University Professor, Professor of Sociology
Ph.D., University of Nebraska
- Kenneth C. Kennard (1968)**
Chairperson of the Department of Philosophy, Professor of Philosophy
Ph.D., Northwestern University
- Larry D. Kennedy (1962)**
Associate Professor of Education
Ed.D., University of Illinois
- Betty J. Keough (1955)**
Professor of Health, Physical Education, and Recreation
Ph.D., State University of Iowa
- Won-Mo Kim (1969)**
Associate Professor of Music
D. of M., Florida State University
- John W. Kirk (1968)**
Professor of Theatre
Ph.D., University of Florida
- Keith P. Knoblock (1967)**
Assistant Professor of Art
M.F.A., Ohio State University
- James V. Koch (1967)**
Chairperson of the Department of Economics, Professor of Economics
Ph.D., Northwestern University
- Robert W. Koehler (1961)**
Professor of Health, Physical Education and Recreation
Ed.D., University of Utah
- Frederick W. Kohnmeyer (1964)**
Professor of History
Ph.D., University of Minnesota
- Walter S.G. Kohn (1956)**
Professor of Political Science
Ph.D., New School for Social Research, New York, New York
- Joe W. Kraus (1966)**
Director of Libraries, Professor of Library Science
Ph.D., University of Illinois
- Brigitte J. Kuhn (1961)**
Professor of French
Ph.D., Sorbonne, University of Paris
- Michael E. Kurz (1968)**
Acting Chairperson of the Department of Chemistry, Associate Professor of Chemistry
Ph.D., Case Institute of Technology
- Joseph LaBelle (1973)**
Assistant Professor of Speech Pathology and Audiology
Ph.D., University of Wisconsin at Madison
- Douglas H. Lamb (1970)**
Acting Director of Student Counseling Services, Associate Professor of Psychology
Ph.D., Florida State University
- Ralph L. Lane (1968)**
Professor of Theatre
Ph.D., Northwestern University
- G. S. Laumas (1973)**
Professor of Economics
Ph.D., Wayne State University
- Joseph L. Laurenti (1962)**
Professor of Spanish and Italian
Ph.D., University of Missouri
- Ronald L. Laymon (1965)**
Professor of Educational Administration
Ed.D., Indiana University
- Dorothy E. Lee (1962)**
Associate Professor of Sociology
Ph.D., University of Iowa
- Kenneth L. Leicht (1967)**
Associate Professor of Psychology
Ph.D., Northwestern University
- Elmer A. Lemke (1965)**
Professor of Psychology
Ph.D., University of Wisconsin
- Wilbert M. Leonard, II (1970)**
Assistant Professor of Sociology
Ph.D., Ohio State University
- Marjorie L. Lewis (1951)**
Associate Professor of Psychology
Ph.D., University of Illinois
- Anthony E. Libertà (1961)**
Professor of Mycology
Ph.D., University of Illinois
- William R. Linneman (1964)**
Chairperson of the Department of English, Associate Professor of English
Ph.D., University of Illinois
- Robert D. Liverman (1969)**
Associate Professor of Health, Physical Education, and Recreation
Ph.D., University of Illinois
- David L. Livers, Jr. (1962)**
Professor of Education
Ph.D., State University of Iowa

- Franzie L. Loepp (1970)**
Assistant Professor of
Industrial Technology
Ed.D., University of
Northern Colorado
- Marvin L. Luther (1966)**
Associate Professor of Physics
Ph.D., Virginia Polytechnic
Institute
- G. Laurene Mabry (1960)**
Director of Women's Intercollegiate
Sports, Professor of Health,
Physical Education, and Recreation
Ph.D., University of Iowa
- Normand W. Madore (1961)**
Professor of Elementary Education
Ed.D., Wayne State University
- Thomas E. Malone (1969)**
Assistant Professor of Art
M.S., University of Wisconsin
- Thomas B. Martin (1962)**
Professor of Business Education
Ed.D., Indiana University
- Paul F. Mattingly (1962)**
Professor of Geography
Ph.D., Pennsylvania
State University
- David J. MacDonald (1971)**
Assistant Professor of History
Ph.D., University of Minnesota
- Richard W. Mawdsley (1969)**
Assistant Professor of Art
M.F.A., University of Kansas
- Robert E. McAdam (1970)**
Director of the Office of Research
Services and Grants,
Professor of Health, Physical
Education, and Recreation
Ph.D., University of Illinois
- James L. McBee (1970)**
American Council on Education,
Fellow in the President's Office
Chairperson of the
Department of Agriculture,
Professor of Animal Science
Ph.D., University of Missouri
- Bernard J. McCarney (1958)**
Acting Chairperson of
the Department of Economics
Professor of Economics
Ph.D., University of Pittsburgh
- George F. McCoy, Jr. (1962)**
School Psychologist in the
Metcalf Elementary School,
Professor of Psychology
Ph.D., University of Illinois
- Derek A. McCracken (1969)**
Assistant Professor of
Biological Sciences
Ph.D., University of Toronto
- J H McGrath (1968)**
Professor of Educational
Administration
Ph.D., University of Iowa
- Elizabeth E. McMahan (1971)**
Associate Professor of English
Ph.D., University of Oregon
- Walter B. Mead (1967)**
Associate Professor of
Political Science
Ph.D., Duke University
- John V. Meador (1969)**
Associate Professor of Finance
Ph.D., State University of Iowa
- Loren W. Mentzer (1957)**
Professor of Botany
Ph.D., University of Nebraska
- Ralph A. Meyering (1961)**
Professor of Education
Ph.D., University of Iowa
- E. Joan Miller (1962)**
Professor of Geography
Ph.D., University of North Carolina
- Murray Lincoln Miller (1950)**
Associate Professor of Education
Ph.D., University of Pittsburgh
- Wilma H. Miller (1968)**
Professor of Education
Ed.D., University of Arizona
- Frederick V. Mills (1968)**
Chairperson of the Department of
Art, Professor of Art
Ed.D., Indiana University
- Orrin J. Mizer (1947)**
Associate Professor of
Biological Sciences
(Metcalf Elementary School)
Ph.D., State University of Iowa
- Edward L. Mockford (1960)**
Professor of Entomology
Ph.D., University of Illinois
- Coenraad L. Mohr (1970)**
Associate Professor of Management
Ph.D., University of Minnesota
- Alan D. Monroe (1970)**
Assistant Professor of Political Science
Ph.D., Indiana University
- Barry E. Moore (1962)**
Associate Professor of Art
Ed.D., University of Illinois
- Clarence L. Moore (1961)**
Professor of Animal Science
Ph.D., South Dakota University
- Robert H. Moore (1952)**
Acting Dean of the
College of Education
Professor of Education
Ph.D., Ohio State University
- Mark R. Moran (1966)**
Associate Professor of Social Work
Ph.D., Ohio State University
- William W. Morgan (1969)**
Associate Professor of English
Ph.D., University of Tennessee
- Joel P. Myers (1970)**
Associate Professor of Art
M.F.A., Alfred University
(New York)
- Mathew J. Nadakavukaren (1964)**
Associate Professor of Botany
and Electron Microscopy
Ph.D., Oregon State University
- Edwin E. Niemi (1958)**
Professor of Art
M.S., University of Wisconsin
- Ann Nolte (1973)**
Professor of Health Education
Ph.D., Ohio State University
- Phares G. O'Daffer (1968)**
Professor of Mathematics
Ph.D., University of Illinois
- Albert D. Otto (1969)**
Associate Professor of Mathematics
Ph.D., State University of Iowa
- Virginia S. Owen (1964)**
Associate Professor of Economics
Ph.D., University of Illinois
- David J. Parent (1968)**
Associate Professor of German
Ph.D., University of Cincinnati
- Kelvin M. Parker (1967)**
Associate Professor of Spanish
Ph.D., University of Chicago
- James T. Parr (1970)**
Assistant Professor of Mathematics
Ph.D., Indiana University
- James E. Patterson (1957)**
Professor of Geography
Ph.D., University of Illinois
- Ralph M. Perry (1967)**
Associate Professor of French
Ph.D., University of Illinois
- Warren S. Perry (1955)**
Chairperson of the department
of Business Education,
Professor of Business Education
Ed.D., University of Colorado
- Harold R. Phelps (1958)**
Chairperson of the Department
of Special Education,
Professor of Special Education
Ph.D., Ohio State University
- Walter D. Pierce (1969)**
Associate Professor of Education
Ed.D., University of
Southern California
- Mark A. Plummer (1960)**
Chairperson of the
Department of History,
Professor of History
Ph.D., University of Kansas
- Douglas Poe (1959)**
Professor of Economics
Ph.D., Indiana University
- Vernon C. Pohlman (1955)**
Professor of Sociology
Ph.D., Washington University
- Charles B. Porter (1961)**
Dean of the College of
Applied Science and Technology,
Professor of Industrial Technology
Ed.D., University of Illinois
- Roger E. Potter (1971)**
Associate Professor of Finance
Ph.D., St. Louis University
- David G. Poultney (1968)**
Associate Professor of Music
Ph.D., University of Michigan
- Mildred S. Pratt (1969)**
Assistant Professor of Social Work
Ph.D., University of Pittsburgh

- Samuel T. Price (1968)**
Professor of Special Education
Ed.D., University of Pittsburgh
- Calvin L. Pritner (1966)**
Chairperson of the Department
of Theatre,
Professor of Theatre
Ph.D., University of Illinois
- W. Laurance Quane (1967)**
Associate Professor of
Industrial Technology
Ph.D., Michigan State University
- David D. Ramsey (1973)**
Associate Professor of Economics
Ph.D., University of Minnesota
- Gary C. Ramseyer (1965)**
Professor of Psychology
Ph.D., University of Iowa
- Taimi M. Ranta (1959)**
Professor of English
Ph.D., University of Minnesota
- Jo Ann Rayfield (1966)**
Assistant Professor of History
Ph.D., Vanderbilt University
- Gordon Redding (1972)**
Assistant Professor of Psychology
Ph.D., University of Wisconsin
at Madison
- John T. Rehm (1969)**
Assistant Professor of Music
M.M., Indiana University
- Earl A. Reitan (1964)**
Professor of History
Ph.D., University of Illinois
- Richard C. Reiter (1964)**
Professor of Chemistry
Ph.D., Purdue University
- Max R. Rennels (1968)**
Associate Professor of Art
Ed.D., Indiana University
- Vernon L. Replogle (1950)**
Director of the Metcalf Elementary
School, Professor of Elementary
Education
Ed.D., University of Illinois
- Kenneth A. Retzer (1959)**
Professor of Mathematics
Ph.D., University of Illinois
- Evelyn J. Rex (1958)**
Professor of Special Education
Ph.D., George Peabody College
for Teachers
- Jonathan E. Reymann (1972)**
Assistant Professor of Anthropology
Ph.D., Southern Illinois University
- Dent M. Rhodes (1965)**
Professor of Education
Ph.D., Ohio State University
- E. Ione Rhymer (1954)**
Professor of Bacteriology
Ph.D., University of Illinois
- John H. Rich (1964)**
Professor of Business Education
Ed.D., Indiana University
- Brent D. Richards (1969)**
Assistant Professor of
Biological Sciences
Ph.D., Michigan State University
- Arlan G. Richardson (1971)**
Assistant Professor of Chemistry
and Biological Sciences
Ph.D., Oklahoma State University
- R. Omar Rilett (1958)**
University Professor,
Professor of Biological Sciences
Ph.D., University of Wisconsin
- Robert K. Ritt (1971)**
Chairperson of the Department of
Mathematics, Professor
of Mathematics
Ph.D., Columbia University
- Stanley G. Rives (1958)**
Dean of Undergraduate Instruction,
Professor of Information Sciences
Ph.D., Northwestern University
- Frederick J. Roberts (1968)**
Assistant Professor of Political Science
Ph.D., Princeton University
- Hibbert R. Roberts (1968)**
Chairperson of the Department of
Political Science, Professor
of Political Science
Ph.D., University of Washington
- James L. Roderick (1956)**
Professor of Music
Ed.D., University of Illinois
- Jose A. Rodriguez (1961)**
Associate Professor of Spanish
Ph.D., Universidad de la Habana,
La Habana, Cuba
- Robert E. Rumery (1964)**
Assistant Professor of Psychology
Ph.D., University of Illinois
- Bernard L. Ryder (1956)**
Professor of Chemistry
Ph.D., University of Illinois
- Howard H. Rye (1957)**
Professor of Music
Ed.D., Columbia University
- Joe A. Sagebiel (1970)**
Associate Professor of Animal Science
Ph.D., University of Missouri
- Richard A. Salome (1970)**
Associate Professor of Art
Ed.D., Stanford University
- Theodore Sands (1950)**
Director of International Studies
Professor of History
Ph.D., University of Wisconsin
- Edward L. Schapsmeier (1966)**
Professor of History
Ph.D., University of
Southern California
- Jean Scharfenberg (1966)**
Professor of Theatre
Ph.D., University of Wisconsin
- Leonard W. Schmaltz (1974)**
Associate Professor of Psychology
Ph.D., University of Michigan
- Donald Schmidt (1971)**
Associate Professor of Psychology
Ph.D., University of Washington
- Else A. Schmidt (1958)**
Professor of Geography
Ph.D., University of Munich,
Germany
- Raymond L. Schmitt (1968)**
Professor of Sociology
Ph.D., University of Iowa
- Virginia Schnepf (1967)**
Professor of Elementary Education
Ed.D., University of Illinois
- Jurgen M. Schroerer (1969)**
Professor of Physics
Ph.D., Cornell University
- Fritz E. Schwalm (1970)**
Assistant Professor of
Biological Sciences
Ph.D., Phillips University;
Marburg (Germany)
- Pheme M. Scott (1966)**
Acting Chairperson of the
Department of Health,
Physical Education,
and Recreation
Professor of Health,
Physical Education
and Recreation
Ph.D., State University of Iowa
- Thomas K. Seagriff (1959)**
Professor of Geology
Ph.D., University of Illinois
- Thomas G. Seecy (1968)**
Professor of Accounting
Ph.D., University of Illinois;
C.P.A.
- Kyle C. Sessions (1967)**
Director of Honors Program
Associate Professor of History
Ph.D., Ohio State University
- John Sharpham (1972)**
Associate Professor of Theatre
Ph.D., University of Colorado
- Tai S. Shin (1968)**
Associate Professor of Finance
Ph.D., University of Illinois
- David L. Shrader (1974)**
Chairperson of the
Department of Music
Professor of Music
D.M.A., University of Oregon
- Sol Shulman (1969)**
Professor of Chemistry
Ph.D., North Dakota State University
- Stanley B. Shuman (1960)**
Associate Dean of Academic Services
Professor of Geography
Ph.D., University of Illinois
- L. Moody Simms, Jr. (1967)**
Professor of History
Ph.D., University of Virginia
- Arnold A. Slan (1967)**
Professor of Elementary Education
Ed.D., Indiana University
- Gerald Smith (1970)**
Visiting Professor of
Educational Administration
M.A., University of Iowa
- Gwen K. Smith (1946)**
Professor of Health, Physical
Education, and Recreation
Ph.D., University of Iowa

- Kathryn W. Smith (1974)**
Associate Professor of Home Economics
Ed.D., University of Illinois
- Ralph L. Smith (1959)**
Professor of Information Sciences
Ph.D., University of Wisconsin
- Robert D. Speiser (1974)**
Assistant Professor of Mathematics
Ph.D., Cornell University
- Keith E. Stearns (1973)**
Associate Professor of
Special Education
Ed.D., Indiana University
- Irwin Spector (1948)**
Professor of Music
Ph.D., New York University
- C. Louis Steinburg (1959)**
Associate Professor of Art
M.S. in Ed., Southern
Illinois University
- C. Edward Streeter (1967)**
Chairperson of the
Department of Information
Sciences, Professor of
Information Sciences
Ph.D., Michigan State University
- Robert D. Sutherland (1964)**
Professor of English
Ph.D., State University of Iowa
- Joe E. Talkington (1962)**
Chairperson of the Department
of Home Economics and
Industrial Technology
Ed.D., University of Northern Colorado
- J. Curtis Tannahill (1964)**
Assistant Professor of Speech
Pathology and Audiology
Ph.D., University of Kansas
- Rodger L. Tarr (1969)**
Associate Professor of English
Ph.D., University of South Carolina
- Patrick Tarrant (1963)**
Professor of French
Ed.D., Columbia University
- Tse-Hao Tcheng (1969)**
Coordinator of Analytical Studies
in the Office of Institutional
Research, Associate
Professor of Information Sciences
Ph.D., University of Iowa
- Tse-Kia Tcheng (1968)**
Director of Academic and Research
Consultation in Computer Services
Associate Professor of
Health, Physical Education,
and Recreation
Ph.D., University of Iowa
- Isabelle Terrill (1949)**
Director of Housing,
Associate Professor of Music
Ed.D., Columbia University
- Clayton F. Thomas (1964)**
Chairperson of the Department
of Educational Administration
Professor of Educational
Administration
Ph.D., University of Iowa
- Shailer Thomas (1969)**
Assistant Dean of the University
Professor of Sociology
Ph.D., Michigan State University
- James T. Thompson (1966)**
Associate Professor of
Animal Science
Ph.D., University of Kentucky
- Jim N. Tone (1963)**
Associate Professor of
Physiology and Anatomy
Ph.D., Iowa State University
- Naomi W. Townner (1965)**
Associate Professor of Art
M.F.A., Rochester Institute
of Technology
- John E. Trotter (1956)**
Chairperson of the Department of
Geography-Geology,
Professor of Geography
Ph.D., University of Chicago
- Wayne O. Truex (1957)**
Professor of Health, Physical
Education, and Recreation
Ed. D., University of Utah
- Joseph C. Tsang (1968)**
Associate Professor of Chemistry
and Biological Sciences
Ph.D., University of Oklahoma
- Robert T. Tussing (1968)**
Professor of Accounting
Ph.D., University of Texas;
C.P.A.; C.D.P.
- Barbara S. Uehling (1974)**
Dean of the College of
Arts and Sciences,
Professor of Psychology
Ph.D. Northwestern University
- Charles L. Vanden Eynden (1969)**
Professor of Mathematics
Ph.D., University of Oregon
- Wilbur R. Venerable (1963)**
Director of Admissions
Associate Professor of Education
Ph.D., Southern Illinois University
- Jared Verner (1973)**
Professor of Biological Sciences
Ph.D., University of Washington
- Joel G. Verner (1967)**
Associate Professor of
Political Science
Ph.D., University of Kansas
- Walter M. Vernon (1963)**
Professor of Psychology
Ph.D., Washington University
- Dale B. Vetter (1941)**
University Professor of English
Ph.D., Northwestern University
- Edward V. Waage (1970)**
Assistant Professor of Chemistry
Ph.D. University of Washington
- Morton D. Waimon (1961)**
Professor of Education
Ed.D., Columbia University
- Lawrence D. Walker (1969)**
Associate Professor of History
Ph.D., University of
California, Berkeley
- Robert H. Walsh (1964)**
Associate Professor of Sociology
Ph.D., University of Iowa
- Jack A. Ward (1965)**
Associate Professor of Ethology
Ph.D., University of Illinois
- D. Gene Watson (1968)**
Assistant Professor of
Educational Administration
Ph.D., University of Chicago
- David F. Weber (1967)**
Associate Professor of Genetics
Ph.D., Indiana University
- Gary D. Weede (1970)**
Associate Professor of
Industrial Technology
Ph.D., Iowa State University
- Robert D. Weigel (1959)**
Professor of Vertebrate Zoology
and Paleontology
Ph.D., University of Florida
- Milton E. Weisbecker (1963)**
Director of Alumni Services
and Development
Professor of Health, Physical
Education, and Recreation
Ed.D., Syracuse University
- Richard O. Whitcomb (1974)**
Chairperson of the Department of
Foreign Language
Professor of German
Ph.D., Stanford University
- Charles A. White (1957)**
Associate Dean of the Graduate
School, Professor of Information
Sciences
Ph.D., University of Wisconsin
- Ray Lewis White (1968)**
Professor of English
Ph.D., University of Arkansas
- Jeral R. Williams (1970)**
Associate Professor of Psychology
Ph.D., University of Iowa
- Macon L. Williams (1968)**
Associate Professor of Psychology
Ph.D., Ohio State University
- Edwin R. Willis (1962)**
Professor of Entomology
Ph.D., Ohio State University
- Ray V. Wiman (1973)**
Professor of Information Sciences
Ed.D., University of Nebraska
- Paul R. Winn (1970)**
Associate Professor of Marketing
Ph.D., University of Illinois
- Emory E. Wiseman (1963)**
Associate Professor of
Industrial Technology
Ed.D., University of Illinois
- Harvey S. Woods (1957)**
Professor of Agricultural
Economics
Ph.D., University of Illinois
- William C. Woodson (1968)**
Associate Professor of English
Ph.D., University of Pennsylvania

Donna Jo Workman (1959)
Professor of Health, Physical
Education, and Recreation
Ph.D., State University of Iowa

Ralph D. Wray (1970)
Associate Professor of
Business Education
Ed.D., Indiana University

David W. Wright (1969)
Assistant Professor of
Information Sciences
Ph.D., Wayne State University

Martin A. Young (1968)
Chairperson of the Department of
Speech Pathology
and Audiology
Director of the Speech
and Hearing Clinic
Professor of Speech

Pathology and Audiology
Ph.D., University of Iowa

Robert D. Young (1967)
Associate Professor of Physics
Ph.D., Purdue University

Harvey G. Zeidenstein (1965)
Professor of Political
Science
Ph.D., New York University

William I. Zeller (1963)
Professor of Education
Ph.D., Michigan State University

Wayne H. Zook (1973)
Associate Professor of
Industrial Technology
Ph.D., Iowa State University

Associate Members of the Graduate Faculty

Ahmed A. Abdel-Halim (1970)
Assistant Professor of Management
Ph.D., University of Illinois

Wilma J. Alexander (1970)
Acting Chairperson of the
Department of
Business Education
Assistant Professor of
Business Education
Ed.D., Oklahoma State University

Donald J. Armstrong (1966)
Associate Professor of Music
D.M.A., University of Texas
at Austin

Robert L. Baker (1971)
Assistant Professor of Education
M.A., University of Rochester

Everett E. Bauer (1970)
Assistant Professor of
Special Education
Ed.D., Illinois State University

Kenneth R. Beckman (1960)
Assistant Professor of
Special Education
Adv. Cert. in Ed., University of
Illinois

Russell B. Bedford (1972)
Associate Professor of Music
M.M., University of Michigan

C. Eric Bickley (1953)
Associate Professor of Theatre
M.S., University of Wisconsin

Irene T. Brosnahan (1968)
Assistant Professor of English
Ph.D., Georgetown University

Lynn H. Brown (1960)
Professor of Mathematics
Ph.D., University of Iowa

Larry L. Cadwell (1973)
Assistant Professor of Radioecology
Ph.D., Colorado State University

John R. Carlock (1951)
Associate Professor of Education
(University High School)
M.S. in Ed., Illinois State University

Gordon L. Chapman (1974)
Associate Professor of Accounting
D.B.A., Arizona State University

John F. Chizmar, Jr. (1971)
Assistant Professor of Economics
Ph.D., Boston College

R. James Clack (1970)
Acting Associate Director of Student
Counseling Services, Assistant
Professor of Education
Ph.D., Purdue University

Gary J. Clark (1969)
Assistant Professor of Chemistry
Ph.D., University of Utah

Stanley R. Clemens (1968)
Assistant Professor of
Mathematics
Ph.D., University of North Carolina

A. Kay Clifton (1968)
Assistant Professor of Sociology
Ph.D., University of Iowa

Betty L. Cole (1974)
Assistant Professor of
Microbiology
Ph.D., University of Nebraska

William E. Colvin (1971)
Coordinator of Ethnic and
Cultural Studies, Associate
Professor of Art
Ed.D., Illinois State University

Robert K. Conyne (1971)
Counselor in the Student
Counseling Services
Assistant Professor of Education
Ph.D., Purdue University

Gail A. Cronauer (1973)
Assistant Professor of Theatre
M.F.A., Case Western Reserve
University

Richard H. Dammers (1971)
Assistant Professor of English
Ph.D., University of Notre Dame

Robert T. Dirks (1971)
Assistant Professor of
Anthropology
Ph.D., Case Western Reserve
University

Carol A. Dodd (1974)
Assistant Professor of
Mathematics
Ph.D., Indiana University

John A. Dossey (1967)
Assistant Professor of
Mathematics
Ph.D., University of Illinois

Orlyn P. Edge (1966)
Associate Professor of
Mathematics
Ph.D., University of Iowa

Carl B. Eichstaedt (1973)
Assistant Professor of Health,
Physical Education and
Recreation
Ph.D., University of New Mexico

Carl K. Ekberg (1970)
Assistant Professor of History
Ph.D., Rutgers University

Nicholas Ernest (1969)
Assistant Professor of Art
M.A.T., Indiana University

Mary Zey Ferrell (1972)
Assistant Professor of Sociology
Ph.D., Louisiana State University

Rodney Forcade (1971)
Assistant Professor of
Mathematics
Ph.D., University of Washington

Bodo Fritzen (1969)
Assistant Professor of German
Ph.D., University of Nebraska

Lucia C. Getsi (1972)
Assistant Professor of English
Ph.D., Ohio University

Barbara L. Goebel (1965)
Assistant Professor of
Psychology
Ph.D., University of Illinois

Melvin A. Goldstein (1971)
Assistant Professor of
Psychology
Ph.D., Rutgers University

Robert C. Goodall (1967)
Associate Professor of
Elementary Education
Ed.D., Indiana University

- George J. Gordon (1970)**
Assistant Professor of
Political Science
Ph.D., Syracuse University
- Charles T. Griffin (1974)**
Assistant Professor of Sociology
Ph.D., Iowa State University
- Jim L. Grimm (1974)**
Assistant Professor of Marketing
D.B.A., Kent State University
- John A. Gueguen (1972)**
Assistant Professor of
Political Science
Ph.D., University of Chicago
- Tong Il Han (1971)**
Associate Professor of Music
M.S., Juilliard School of Music
- Robert G. Hathaway (1966)**
Associate Professor of
Mathematics
Ph.D., University of Wisconsin
- David F. Holden (1971)**
Assistant Professor of English
Ph.D., University of Kansas
- Lloyd M. Hulit (1972)**
Assistant Professor of Speech
Pathology and Audiology
Ph.D., Ohio State University
- Robert W. Hunt (1969)**
Assistant Professor of
Political Science
Ph.D., Princeton University
- Harriett Hutter (1969)**
Assistant Professor of Spanish
(University High School)
Ph.D., University of Illinois
- Samuel Hutter (1965)**
Assistant Professor of
Psychology
M.S., University of Illinois
- Ronald H. Jackson (1972)**
Assistant Professor of Art
M.F.A., California College of
Arts and Crafts
- Donald S. Kachur (1966)**
Assistant Professor of Education
Ed.D., Indiana University
- Robert J. Kerber (1974)**
Associate Professor of
Management
D.B.A., Texas Tech University
- Jay C. Kohn (1970)**
Assistant Professor of Art
M.F.A., University of Wisconsin
- David C. Larsen (1974)**
Assistant Professor of
Information Sciences
Ph.D., University of Nebraska
- Arthur Lewis (1972)**
Associate Professor of Music
Doctor of Music, Indiana
University
- Franklin G. Lewis (1967)**
Associate Professor of Education
Ed.D., North Texas State
University
- Michael Lorber (1970)**
Associate Professor of Education
Ph.D., Ohio University
- Kenton Machina (1973)**
Assistant Professor of Philosophy
Ph.D., University of California
at Los Angeles
- John H. Marlow (1973)**
Lecturer in Art
Gohingen University (Germany)
Willesden School of Art (London)
College of Art (London)
University of London (England)
- Diane McGrath (1973)**
Assistant Professor of Psychology
Ph.D., University of Illinois
- Robert L. Metcalf (1961)**
Director of University High School
Athletics, Associate Professor of
the Teaching of Health, Physical
Education, and Recreation
P.E.D., Indiana University
- Larry Reed Miller (1973)**
Assistant Professor of
Industrial Technology
Ph.D., Ohio State University
- Wayne R. Miller (1973)**
Associate Professor of Health,
Physical Education and
Recreation
Ph.D., University of Maryland
- Alan P. Milliren (1969)**
Assistant Professor of
Elementary Education
Ed.D., University of Illinois
- Benjamin Moore (1973)**
Assistant Professor of Psychology
M.S., Florida State University
- Charles E. Morris (1966)**
Secretary of the University
Associate Professor of
Mathematics
Ph.D., University of Illinois
- Melvin E. Neville (1973)**
Assistant Professor of
Microbiology
Ph.D., Iowa State University
- Marilyn P. Newby (1965)**
Assistant Professor of Art
M.S. in Ed., Southern Illinois
University
- Don L. Peterson (1964)**
Assistant Professor of Music
M.S., University of Wisconsin
- George A. Petrosian (1963)**
Assistant Professor of French
Ph.D., University of Michigan
- Dennis R. Pollack (1971)**
Assistant Professor of Psychology
Ph.D., Michigan State University
- Michael Pollock (1971)**
Professor of Music
Queen's College; American Theatre
Wing Professional Training
Program
- Robert L. Preston (1974)**
Assistant Professor of Physiology
Ph.D., University of California
- Stanley W. Renner (1968)**
Assistant Professor of English
Ph.D., University of Iowa
- Doris Richards (1951)**
Assistant Professor of Speech
Pathology and Audiology
Ph.D., Case Western Reserve
University
- Carmen H. Richardson (1971)**
Associate Professor of English
Ed.D., Oklahoma State University
- Don R. Robinson (1972)**
Assistant Professor of Business
Administration
D.B.A., Louisiana State University
- Jimmy D. Scott (1957)**
Associate Professor of the
Teaching of Health, Physical
Education, and Recreation
(University High School)
Ed.D., University of Missouri
- James R. Scrimgeour (1971)**
Assistant Professor of English
Ph.D., University of Massachusetts
- William D. Sendlak (1974)**
Assistant Professor of
Information Sciences
Ph.D., University of Minnesota
- Charles E. Sherman (1969)**
Associate Professor of Education
Ed.D., Northern Illinois University
- Thomas W. Shilgalis (1967)**
Assistant Professor of
Mathematics
Ph.D., University of Illinois
- Robert J. Silver (1969)**
Coordinator of Training and Staff
Development in the Office of
Student Counseling Services,
Assistant Professor of Psychology
Ph.D., Indiana University
- Lawrence E. Spence (1970)**
Assistant Professor of
Mathematics
Ph.D., Michigan State University
- E. Robert Steff (1966)**
Assistant Professor of Art
M.S., Southern Illinois University
- Bruce L. Stern (1973)**
Assistant Professor of Business
Administration
D.B.A., Arizona State University
- Herold S. Stern (1971)**
Associate Professor of Education
Ph.D., New York University
- Richard A. Stivers (1970)**
Assistant Professor of Sociology
Ph.D., Southern Illinois University
- Kenneth H. Strand (1970)**
Research Consultant in Computer
Services, Assistant Professor of
Health, Physical Education, and
Recreation
Ph.D., University of Iowa
- Gary R. Sudano (1970)**
Assistant Professor of Music
Ed.D., University of Illinois

Arthur W. Sweet (1969)
Assistant Professor of Art
M.S., Florida State University

Vivian Tasker (1960)
Assistant Professor of Special
Education
M.A., Northwestern University

Fred A. Taylor (1974)
Assistant Professor of
Elementary Education
Ph.D., Purdue University

Wendell B. Tinsley (1970)
Assistant Professor of Art
M.F.A., University of Iowa

William L. Tolone (1970)
Assistant Professor of Sociology
Ph.D., University of Tennessee

Michael Vinitzky (1972)
Assistant Professor of Psychology
Ph.D., University of Minnesota

Frank C. Vybiral (1971)
Instructor in Theatre
M.F.A., University of Texas
at Austin

Leah M. Wilcox (1972)
Assistant Professor of English
Ed.D., University of Southern
California

Wenmouth Williams, Jr. (1974)
Assistant Professor of
Information Sciences
Ph.D., Florida State University

Forrest Wisely (1973)
Assistant Professor of
Information Sciences
Ed.D., University of Southern
California

Harold J. Wray (1973)
Assistant Professor of History
Ph.D., University of Hawaii

Walker D. Wyman (1971)
Assistant Professor of History
Ph.D., University of Washington

Richard C. Youngs (1964)
Associate Professor of
Elementary Education
Ph.D., Michigan State University

James F. Zvanut (1967)
Assistant Professor of Theatre
M.F.A., University of Texas

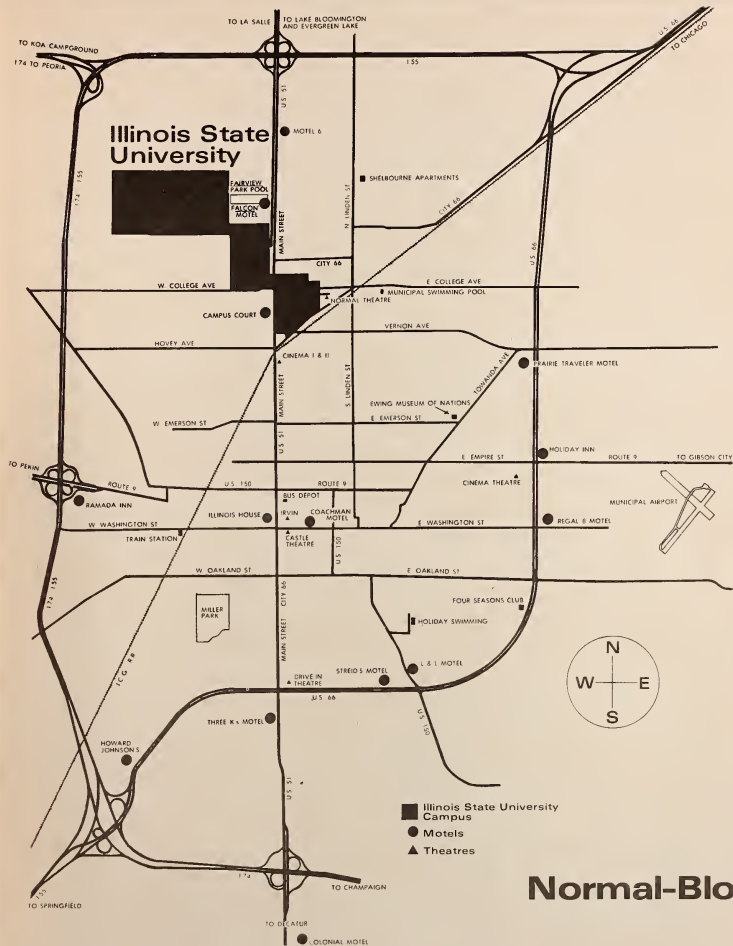


Index

Academic advisers	20, 22, 25, 26
Accounting	45
Accreditation	7
Administration, Educational	69
Admission	8
Admission to candidacy	21, 23, 26, 29
Agriculture	34
Alumni	16
Anthropology	124
Art	34
Assistantships	14
Auditor	32
Biological Sciences	39
Board of Regents	4
Botany	39
Business	44
Business Administration	44
Business Education	50
Calendar	3
Candidacy, admission to	21, 23, 26, 29
Chemistry	52
Clinical Experiences and Admission- Retention in Teacher Education	59
College Teaching	19
Commencement	32
Counselor Education	60
Course numbering system	34
Credit transfer	20, 23, 24, 25, 28
Curricula	18
Curriculum and Instruction	60
Degrees	18
Doctoral dissertations	27, 30
Doctoral program	28
Doctor of Arts	30
Economics	55
Education	59
Educational Administration	69
Employment	15
English	72
Evening, late afternoon, and Saturday classes	8
Examinations	22, 24, 26, 27, 29
Faculty	141
Fees	12
Foreign Languages	77
French	77
General Courses	140
Geography	81
German	78
Grading system	30
Graduate council	5
Graduation fee	12
Health, Physical Education and Recreation	84
History	88
Home Economics	92
Housing	14
Incompletes	31
Industrial Technology	94
Information Sciences	99
Instructional Media	99
Latin	79
Library	7
Library Science	99
Loans	14, 15
Master's program	18
Master of Fine Arts program	22
Mathematics	105
Microbiology	39
Music	111
Non-degree students	9
Off Campus classes	8

Officers of the University	7	Specialist programs	24
Physical Education	84	Speech Communication	101
Placements	16	Speech Pathology and Audiology	131
Political Science	117	Summer Sessions	7
Psychology	120	Supervision	61
Reading	61	Theatre	134
Refunds	17	Thesis	21
Residence requirements	20, 23, 24, 25, 27, 28	University Foundation	17
Scholarship requirements	30	Veterans	15
Scholarships	14	Western European Studies	138
School psychology	121	Withdrawal	31
Sociology	125	Workshop	140
Spanish	80	Zoology	39
Special Education	129		





POULTNEY, DAVID G
MUSIC
ILLINOIS STATE UNIVERSITY
NORMAL, ILLINOIS

61761

